

The Technology Review

VOL. XIV.

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No. 8

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OF THE

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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FRANK W. HODGDON, '76 (term expires January, 1913).

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GEORGE B. GLIDDEN, '93 (term expires January, 1914).

Representatives at Large

Term expires January, 1913

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HARRY E. CLIFFORD, '86.

WILLIS R. WHITNEY, '90.

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HOWARD L. COBURN, '87.

Term expires January, 1914

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Term expires March, 1913

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Term expires March, 1914

WALTER B. SNOW, '82.

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Term expires March, 1915

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Term expires January, 1913

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F. H. FAY, '93.

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Term expires January, 1914

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TECHNOLOGY CLUB OF CENTRAL PENNSYLVANIA.
TECHNOLOGY CLUB OF THE CONNECTICUT VALLEY.
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TECHNOLOGY CLUB OF HARTFORD, CONN.
INLAND EMPIRE ASSOCIATION OF THE M. I. T.
TECHNOLOGY CLUB OF NEW BEDFORD.
TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA.
TECHNOLOGY ASSOCIATION OF OREGON.
ROCKY MOUNTAIN TECHNOLOGY CLUB.
TECHNOLOGY CLUB OF THE SOUTH.
BROOKLINE TECHNOLOGY ASSOCIATION.
TECHNOLOGY ASSOCIATION OF JAPAN.
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FREDERIC HAROLD FAY 60 City Hall, Boston, Mass.	'93		

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- Albany — TECHNOLOGY CLUB OF ALBANY, N. Y., Ralph C. Robinson ('01), Secretary, Research Laboratory General Electric Co., Schenectady, N. Y.
- Birmingham — TECHNOLOGY ASSOCIATION OF GREATER BIRMINGHAM, ALA., Maurice Scharff ('09), Secretary, care of Morris Knowles, 2548 Oliver Bldg., Pittsburg, Pa.
- ~~Eng~~ Luncheon — Saturdays at 1.00 p. m. at the Turnverein.
- Boston — TECHNOLOGY CLUB OF BOSTON, Dr. Robert Seaton Williams ('02), Secretary, 83 Newbury Street, Boston, Mass.
- Brookline — BROOKLINE TECHNOLOGY ASSOCIATION, George Lawrence Smith ('97), Secretary, 36 Upland Road, Brookline, Mass.
- Buffalo — TECHNOLOGY CLUB OF BUFFALO, R. F. Morgan ('96), Secretary, 139 W. Oakwood Place, Buffalo, N. Y.
- Chicago — NORTH-WESTERN ASSOCIATION OF THE M. I. T., Meyer J. Sturm ('96), Secretary, 116 So. Michigan Avenue, Chicago, Ill.
- ~~Eng~~ Luncheon — Thursdays at 12.30 p. m. at Grand Pacific Hotel, 178 Madison Street.
- Cincinnati — THE CINCINNATI M. I. T. CLUB, Stuart R. Miller ('07), Secretary, 3366 Morrison Avenue, Clifton, Cincinnati, Ohio.
- ~~Eng~~ Luncheon — Tuesdays from 12 to 1.30 p. m. at Bismarck Grill, Walnut Street.
- Cleveland — TECHNOLOGY CLUB OF NORTHERN OHIO, Sidney Young Ball ('03), Secretary, 1847 East 97th Street, Cleveland, Ohio.
- Denver — ROCKY MOUNTAIN TECHNOLOGY CLUB, Walter H. Trask, Jr. ('06), Secretary, 845 Penn Street, Denver, Colo.
- Detroit — DETROIT TECHNOLOGY ASSOCIATION, Currier Lang ('04), Secretary, care of Solvay Process Co., Detroit, Mich.
- Hartford — TECHNOLOGY CLUB OF HARTFORD, CONN., George William Baker ('92), Secretary, Box 983, Hartford, Conn.
- Hawaii — HAWAII TECHNOLOGY CLUB, Norman Watkins ('98), Secretary, Box 767, Honolulu, H. I.
- Japan — TECHNOLOGY ASSOCIATION OF JAPAN, Dr. Takuma Dan ('78), Secretary-Treasurer, 344 Awoyama Harajiku, Tokio, Japan.
- Lawrence } — TECHNOLOGY CLUB OF THE MERRIMACK VALLEY, John Arthur Collins, Jr. ('97),
Lowell } Secretary, 67 Thorndyke Street, Lawrence, Mass.
- Los Angeles — TECHNOLOGY CLUB OF SOUTHERN CALIFORNIA, L. A. Parker ('06), Secretary, 689-691 Pacific Electric Building, Los Angeles, Cal.
- ~~Eng~~ Luncheon — First Wednesday of each month at the University.
- Manchester — TECHNOLOGY ASSOCIATION OF NEW HAMPSHIRE, Harold A. Smith, ('11), Secretary-Treasurer, 186 Lowell Street, Manchester, N. H.
- Manila — TECHNOLOGY CLUB OF THE FAR EAST, William A. Adams ('08), Secretary, Bureau of Lands, Manila, P. I.
- Milwaukee — TECHNOLOGY CLUB OF MILWAUKEE, Mitchell Mackie ('05), Secretary, Commercial Auto Co., Milwaukee, Wis.
- Minneapolis — TECHNOLOGY ASSOCIATION OF MINNESOTA, DeW. C. Ruff ('07), Secretary, Manhattan Building, St. Paul, Minn.
- New Bedford — TECHNOLOGY CLUB OF NEW BEDFORD, MASS., Charles Frederic Wing, Jr. ('99), Secretary, 36 Purchase Street, New Bedford, Mass.
- New Orleans — TECHNOLOGY CLUB OF THE SOUTH, Frank Wyman Crosby ('90), Secretary, 501-504 Denegre Building, New Orleans, La.

- New York — TECHNOLOGY CLUB OF NEW YORK, 17 Gramercy Park, Walter Large ('79), Secretary, 15 William Street, New York, N. Y.
- Philadelphia — TECHNOLOGY CLUB OF PHILADELPHIA, Dudley Clapp ('10), Secretary, Valdosta, Ga.
- Pittsburg — PITTSBURG ALUMNI ASSOCIATION, L. K. Yoder ('95), Secretary, 5810 Murray-hill Place, Pittsburg, Pa.
- Portland — TECHNOLOGY ASSOCIATION OF OREGON, Antoine Gilbert Labbé ('07), Secretary, 227½ Washington Street, Portland, Ore.
- Providence — TECHNOLOGY CLUB OF RHODE ISLAND, Gerald M. Richmond ('99), Secretary, 532 Grosvenor Building, Providence, R. I.
- Rochester — TECHNOLOGY CLUB OF ROCHESTER, J. F. Ancona ('03), Secretary, 190 Birr Street, Rochester, N. Y.
- St. Louis — ST. LOUIS SOCIETY OF THE M. I. T., Amasa M. Holcombe ('04), Secretary-Treasurer, care of Carr & Carr, 510 Pine Street, St. Louis, Mo.
- San Francisco — TECHNOLOGY ASSOCIATION OF NORTHERN CALIFORNIA, Office, 832 Merchants Exchange Bldg., San Francisco, Cal., Howard Coburn Blake ('06), Secretary, 3009 Deakin Street, Berkeley, Cal.
- Seattle — TECHNOLOGY CLUB OF PUGET SOUND, M. P. Anderson ('10), Secretary, 111 Cherry Street, Seattle, Wash.
- ~~Spokane~~ Luncheon — Third Tuesday of each month.
- Spokane — INLAND EMPIRE ASSOCIATION OF THE M. I. T., Philip F. Kennedy ('07), Secretary, 811 E. Mission Ave., Spokane, Wash.
- Springfield — TECHNOLOGY CLUB OF THE CONNECTICUT VALLEY, Ernest W. Pelton ('03), Secretary, 77 Forest Street, New Britain, Conn.
- Steelton — TECHNOLOGY CLUB OF CENTRAL PENNSYLVANIA, Stephen Badlam ('00), Secretary, Box 183, Steelton, Pa.
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- Washington — WASHINGTON SOCIETY OF THE M. I. T., Clifton N. Draper ('08), Secretary, 1860 Columbia Road, Washington, D. C.
- Worcester — WORCESTER COUNTY TECHNOLOGY CLUB, Louis E. Vaughan ('02), Secretary-Treasurer, 72 West St., Worcester, Mass.

FIXED LUNCHEONS

- Birmingham — Technology Association of Greater Birmingham at the Turnverein, Saturdays at 1.00 p. m.
- Chicago — North-Western Association of M. I. T. at Grand Pacific Hotel Thursdays at 12.30 p. m.
- Cincinnati — Cincinnati M. I. T. Club at the Bismarck Grill, Walnut Street, Tuesdays from 12-1.30 p. m.
- Los Angeles — Technology Club of Southern California at the University on the first Wednesday of each month.
- Seattle — Technology Club of Puget Sound, at the College Club third Tuesday of each month.



CONSTANT DÉSIKÉ DESPRADELLE

The Technology Review

VOL. XIV

NOVEMBER, 1912

No. 8

FUND TO BE PUSHED VIGOROUSLY

Eighty per cent. of former students not yet subscribing offers a large field—Something asked from each man however small—Personal work to be begun at once

The work of securing subscriptions for the Alumni Fund was omitted during the summer but with the return of cooler weather the central committee is hard at work organizing an energetic campaign which will be pushed vigorously from now on.

The amount of money subscribed up to October 1 is \$422,591.88, from 1,960 subscribers. In other words, nearly 7,000 Tech men have not made any contribution whatever nor indicated their inability to do so. The committee feels that much of the responsibility for this condition of things may rest at its door. We believe that every former student would be represented by some gift, large or small, if the real need of the Institute were fully understood. The impression that has gone abroad that the generous sums of money which Technology has received are amply sufficient for all its needs, is emphatically untrue. Nearly every dollar that has been given to the Institute is to be used for certain specified purposes and outside of this list of objects are a number which are fully as important and for which there are absolutely no funds. It is therefore evident that the building committee is tremendously handicapped in laying out the new Institute, for although the educational buildings have been provided for, the committee is entirely at sea as to how much money will be available for other equally important purposes.

Here are the broad facts relative to the gifts to the Institute during the last two years. They amount approximately to

\$6,125,000. Of this sum \$775,000 was given by Mr. du Pont and others and was expended for the Cambridge land. The \$1,000,000 voted by the state of Massachusetts, at the rate of \$100,000 a year for ten years, must be used for running expenses. The Green fund of \$500,000 is left to assist poor and needy students. The Pratt fund, \$750,000, is restricted to the use of the school of naval architecture. This will is now being contested. Mrs. Rogers' fund, \$500,000, and the Perkins fund, \$100,000, are to be added to endowment. The two and one-half million dollars given by "Mr. Smith" are to be used for the erection of the new educational buildings.

In his letter of March 20, 1912, President Maclaurin asked the alumni to supplement the gift of our unknown benefactor, so that the part of the work for which the alumni are responsible will be in keeping with the general plan. He asks for sufficient funds for a complete equipment for social activities among the students, including a gymnasium and the athletic field. The entire equipment of the new educational buildings, as well as the buildings devoted to social life, is yet to be provided for, the grounds must be filled in and properly laid out at a large expense. To provide for these expenditures and others not enumerated, we have about \$135,000 previously raised by the alumni to be applied to the building to be erected in memory of General Walker, and the amount of the Alumni Fund as it stands today. It seems likely that the sum needed will be more than double this combined amount, so that our readers can readily understand that a very serious problem is facing the Corporation.

The Alumni Fund Committee numbering over a hundred members, with auxiliary committees in all the alumni centers, forms an effective machine for reaching every former student personally. It is the spirit of the gift rather than the amount, that carries weight, and the committee will make an effort to secure some subscription, however small, from each individual.

The relative standing of the classes on October 1 was as follows:

CLASS POINTS			CLASS POINTS			CLASS POINTS		
1.	'68	8	6.	'10	13	11.	'76	26
2.	'81	8	7.	'90	17	12.	'91	26
3.	'78	9	8.	'09	18	13.	'08	26
4.	'85	10	9.	'89	22	14.	'93	29
5.	'88	12	10.	'73	25	15.	'07	33

CLASS POINTS			CLASS POINTS			CLASS POINTS		
16.	'11	38	26.	'80	52	36.	'01	70
17.	'05	39	27.	'95	53	37.	'99	72
18.	'79	40	28.	'96	54	38.	'70	74
19.	'03	40	29.	'82	56	39.	'00	74
20.	'06	40	30.	'94	56	40.	'75	76
21.	'83	45	31.	'72	61	41.	'87	76
22.	'74	46	32.	'04	62	42.	'92	76
23.	'69	49	33.	'98	64	43.	'02	76
24.	'97	49	34.	'71	65	44.	'86	79
25.	'84	50	35.	'77	66			

An Unusual Publication

About three years ago a very unusual book was circulated at the Institute, written and financed by the undergraduates and dealing with all phases of student life at Technology. This book received wide commendation by the press of the country as an unusual tribute from undergraduates to their Alma Mater. The student governing body, the Institute Committee, decided to issue a new edition last spring and this has just come from the press. It is similar in a general way to the original work but a number of new features have been added since the first book was published. It is a complete compendium for the newcomer as well as a hand book of reference for all students.

It begins with an historical sketch of the Institute, contributed, followed by a general description of the various courses, including advanced study and research. It tells about all the institutions of undergraduate life; union, clubs, societies, fraternities, Institute committee, the new finance commission, the organization and management of classes, the various undergraduate activities, the calendar for the year, the point system with ratings up to date, the new summer camp of civil engineering, employment bureau, libraries, student banking system, how to register and also a sketch of the alumni organization. It is full of very interesting matter which will be appreciated by every former student of the Institute. If you would like to have one, enclose fifty cents in a letter with your address and send to E. B. Germain, '12, Editor-in-chief, Box 2, Technology Union, Boston, Mass.

Why Should You Contribute To The Technology Alumni Fund?

In the appeal being made to the Alumni for funds for the new Institute, putting entirely aside the question of sentiment, the question has been asked me by several alumni, "Why should I contribute to the Alumni fund?" They continue by saying it is true that I went to the Institute, it may be true that I graduated, but I paid my tuition. What more should be expected of me? If I buy an automobile for \$2,000, should I be expected also to support that automobile company if they later need money? Have they, in fact, any claims on me whatsoever? To these latter questions I answer decidedly, "No." The automobile company would have no claim upon you, but in applying this principle to the Institute of Technology the error comes in looking at the question as a purely business transaction. Did you buy your Institute education as you buy your clothes? It is true that many private schools are started with the object of instructing the youth of the country but also with the idea of making the school remunerative, but it was with no idea of a purely business transaction that Rogers started the Institute. It was then, and it must always, be a charity. A charity, it is true, replete with wonderful opportunities, but, at the best, a charity.

Why did you ever go to the Institute? The answer can only be, because either you, your parents or others interested in you thought that it would be a help to you through life and open to you greater opportunities. Has it done so? Has it made you one bit better off? Has it given you a position in life that otherwise you would not have had? That is what Rogers and the others who founded the Institute hoped for. These men started the Institute knowing well it would not be a paying venture. They desired solely to give to young men the opportunity of scientific education, recognizing the great possibilities it offered for the betterment of their lives and, incidentally, through them the betterment of the nation and of the world. Rogers gave his life work and his money to the cause, and since then hundreds of others have contributed, often where they could ill afford it, to maintain and further the work. These men did not do it for themselves. **THEY DID IT FOR YOU.** Every student at the Institute has cost the institution a great many more dollars than the student repaid to it for his tuition.

Let us think of the purchase of the automobile in this light and see if it looks the same. Suppose you were in poor health and a friend, thinking that an automobile which would take you out into the fresh air of the country would be good for you, that it would renew your health and fit you better for your life work, knowing well that \$2,000 was more than you could spare, offered you a considerable sum of money to help you purchase the car. That with it came health and ability to better your position in the world, just as your friend had hoped. Would you not feel under some obligation to pay back that friend, at least, what he gave you? Might you not want to pay him many fold? Would you not like to be in a position to do the same favor for some one else that your friend did for you?

Scientific education, at the best, is expensive, too expensive if taken from the realm of charity for more than the favored few, and so at the Institute of Technology, from its very inception, broad-minded men have come forward with their help and you and I have profited by it. Who is to help the next generation? There will be those who will do it now as others did it before, but if we, who have enjoyed the benefits of the past, are better off because of this help, can we not do something ourselves to help carry the burden, if for no other reason than in grateful recognition of those who helped us to what we are.

The Institute is about to build a permanent home. It must be built right; you would not have it otherwise. With no ostentation or reward friends outside and inside of her fold will help her now as they helped her before, but you, her own children, who have enjoyed her privileges and who have reaped her reward, you of the Alumni body, WHAT OF YOU? Philanthropists outside her fold are waiting for that answer; much depends on it, and as each alumnus asks himself that question—"What of you," so each must answer it. Fortune does not smile on all alike. The widow's mite was the greatest gift of all.

ARTHUR T. BRADLEE, '88.

NEW YORK INVITES US ALL

Midwinter Festivities in the Metropolis with New York Club as host—Technology Clubs Associated to be formed and Alumni Association to hold its annual banquet there

Technology, securely enthroned in Boston, is now moving out to annex the rest of the world, and begins with the metropolis. For the first time the Alumni Association meets outside of Boston, holding its annual dinner in New York on January 18, in connection with a two days' reunion of Technology alumni, which fittingly marks the position of national leadership achieved by the Institute.

The plans for the New Technology, and the active part taken by the alumni in forwarding them, have led to vigorous activity on the part of the older local societies and to the organization of new ones all over the United States. The Technology Club of New York will celebrate its tenth birthday by the attainment of a membership of 1,000 and, at the suggestion of this husky offspring, the parent organization to which all owe allegiance has voted to move to New York for two days, and calls upon all classes and local clubs to join in a series of rousing meetings and in the formation of the Technology Clubs Associated, a general organization of local societies which in the future will bring Tech men together once a year in various parts of the country to renew old ties and to take counsel for the furtherance of Institute affairs.

The dates for the reunion will be Friday, January 17, and Saturday, January 18, and the headquarters, the Hotel Plaza, 59th Street and Fifth Avenue, New York. Festivities will begin on Friday with a series of luncheons, at which the past students will gather by departments in the small dining-room at the Plaza, to meet with professional fellows of whatever class, and hear of the progress of their own department in recent stirring times. Each luncheon will be addressed by two speakers of eminence in their profession, one of them representing the teaching staff of the department at the Institute.

At 3 o'clock Friday afternoon all the alumni will gather in the

large banqueting hall for a mass meeting with President Kittredge of the Technology Club of New York in the chair. Ten-minute addresses will be made by President Maclaurin of the Institute, President Rollins of the Alumni Association, Mr. John R. Freeman, or some one designated by him to describe the building plans of the New Technology, Professors Dewey, Noyes and Sedgwick, or other prominent members of the Faculty, and by representatives of some of the local alumni associations. The "Technology Clubs Associated" will then be organized, its constitution and by-laws adopted, and officers elected for the ensuing year.

At five o'clock on Friday, afternoon tea will be served at the Plaza for the ladies and alumni in attendance at the reunion; Friday night is left free for theatre parties and other individual plans. At 1 p. m. on Saturday the small dining-rooms at the Plaza and other near-by hotels will be used for reunions of classes and groups of classes; and it is hoped that every class secretary will assist in making this one of the most successful features of the reunion.

On Saturday night at 7 p. m. the festivities will come to a close with the annual banquet of the Alumni Association, President Rollins presiding. President Maclaurin and President A. C. Humphreys of the Stevens Institute, president of the American Society of Mechanical Engineers, have already accepted invitations to speak, and there will be three other speakers of the highest eminence in scientific, business and political life. During both days of the reunion there will be "open house" at the Technology Club, 17 Gramercy Park, and special excursions, theatre parties and the like, may be organized if it seems desirable.

The local committee in New York, to which the Alumni Association has delegated the detailed plans for the reunion, is as follows:—B. Hurd, chairman; W. H. King, constitution of Technology Clubs Associated and open house. A. Sargent, dinner; G. Swope, finance; L. D. Gardner, headquarters; B. Stoughton, honorary list and speaker; C. W. Rice, reception; G. V. Wendell, tea; C.-E. A. Winslow, publicity. The members of the committee will be grateful for any suggestions that will help to make the reunion a fitting expression of the enthusiasm and loyalty of the sons of M. I. T.

C.-E. A. WINSLOW, '98.

TO HOLD ALUMNI DINNER IN NEW YORK

Council accepts invitation of New York club and endorses "Technology Clubs Associated"—Nominees for Corporation and Alumni offices—Committees on Student Housing and New Course in Administration report progress

The first fall meeting of the Alumni Council, October 15, was well attended, about forty being present at the University Club in Boston.

Frank L. Locke, '86, made a report for the nominating committee, naming nominees for term members of the Corporation and for officers of the Alumni Association. These nominations were as follows:

For term members of the Corporation: Sumner B. Ely, '92; Cass Gilbert, '82; Charles Hayden, '90; Henry J. Horn, '88; Charles T. Main, '76; F. B. Richards, '84.

For officers of the Alumni Association: For president, F. H. Fay, '93; for vice-president for two years, W. H. King, '94; for secretary-treasurer, Walter Humphreys, '97; for executive committee for two years, M. L. Emerson, '04; Jasper Whiting, '89; for representatives-at-large on the Council for two years, Arthur C. Anthony, '86; Louis K. Rourke, '95; Thomas E. Sears, '03; W. Lyman Underwood, '98; L. K. Yoder, '95.

Mr. Fay made a report for the committee on the Summer School of Civil Engineering in the absence of Leonard Metcalf, '92, chairman. Mr. Fay briefly recounted the history of the project from the time it was first taken up by the Alumni Council until its completion this summer, showing that the enterprise was carried through entirely by alumni of the Institute, including all the expenses of providing the camp. Mr. Fay was followed by Professor Spofford, '93, who described the camp, the buildings and other prominent features and told of the first session of the summer school which has recently been concluded. Professor Spofford has contributed an article to the REVIEW, which appears in this number and which gives a most interesting insight into the workings of the school and the advantages of the new camp.

A. Farwell Bemis, '93, in reporting for the committee on student housing, said that the committee was getting a lot of interesting material from Mr. Freeman and his staff in regard to other colleges, which report will have full study. So far as his committee has reached any conclusion it seems quite clear that the Institute dormitories should be somewhat similar to those found at Princeton. Here the plan is to divide the living apartments into sections or stairways, with fifteen to thirty men in each section. Apparently the best solution of the eating problem would be the building of commons, where all students would take most or all of their meals. Decision must be made between this plan or that of furnishing meals in the dormitories to small groups. The preponderance of evidence, however, seems to favor the first plan, as it is more economical and appears to have greater advantages in a social way. Mr. Bemis stated that the committee hopes for publicity in connection with the details of the general building plan, so that relations of the buildings for social purposes to the educational group may have intelligent consideration. He hoped that a special meeting of the Council might be held for this purpose soon. If at that time the Corporation is prepared to submit tentative plans to indicate to the committee what its limitations are, definite progress could be made. The idea of the speaker is to bring out discussion which he believed would be prolific of good results. He thought that these problems should be put before the Council in as much detail as possible and made the subject of conference. One of the questions that has disturbed the committee is the one particularly interesting to the fraternities, as to whether their houses can be located on the campus or not. If we are to continue to have fraternities, which seems inevitable, it means a great deal to the social life of the students whether the members of these fraternities shall mingle with non-fraternity men or be segregated.

Following Mr. Bemis' remarks, President James Rollins, '78, stated that a meeting had been called for the purpose of discussing this matter at the University Club, November 12. The meeting will be devoted particularly to the various problems related to the development and lay-out of the new Technology buildings.

Henry A. Morss, '93, chairman of the committee on business engineering course, made a report of progress but was not ready to give his final report. The matter is being fully considered by

the committee, and the speaker hoped that he might have an opportunity at a subsequent meeting to take up the matter fully with the Council. He stated that it had been discussed by the executive committee of the Institute some few years ago, but was dropped probably because of the expense. It would require considerable investigation to determine just what the course should be.

Professor Harry W. Tyler, '84, of the Walker Memorial committee, was not prepared to make a report at this meeting.

Everett Morss, '85, on behalf of the Alumni Fund committee, stated that during the hot months the work had not been pushed, but the committee expects to get busy during the next week or ten days and make a strong effort to increase the amount already subscribed. The total subscriptions to date are \$423,931.88. Previous to the first of October cash had been received on subscriptions to the amount of \$36,422.16. Since the notices were sent out on October first, \$37,839 had been received, making a total of cash on account of the fund, \$74,261.16.

I. W. Litchfield, '85, reporting for the "prodding" committee in the absence of Mr. Emerson, stated that since the committee had started its work of collecting by letter, \$984 had been received. The same committee has also been at work to increase the membership. Since its efforts began, about the first of the year, 365 non-graduates have applied for membership. The total membership of the association now being 6,182.

The guests of the evening were Benjamin Hurd, '96, and William H. King, '94, of New York City, who represented a strong committee of the Technology Club of New York, formed for the purpose of holding a mid-winter reunion in that city at the Plaza Hotel, January 17 and 18. They came to Boston to invite the executive committee to hold the annual alumni dinner there at that time. Although the committee was in favor of accepting the invitation, they thought it best to put the matter up to the Council and let them discuss and decide it.

Mr. Hurd told of the inception and progress of the idea and stated that the tenth anniversary of the Technology Club of New York came about that time, and he hoped that the event might be celebrated by holding the alumni dinner in New York. He endorsed President Rollins' sentiment that Technology was not a Boston institution alone but was nation-wide, and the alumni dinner could well be held wherever a large number of Tech men

could be got together. Mr. Hurd gave a synopsis of the program, which, briefly, is to consist of departmental luncheons on January 17, with a smoker later in the afternoon at the Plaza Hotel, to be addressed by men representing the Institute, the building committee of the Corporation and the various delegates from other clubs. One feature of the reunion is to organize the Technology Clubs Associated, merely a social organization which may hold reunions in different parts of the country on successive years. There will be no program Friday evening, so that visitors can go to the theatres or other forms of amusement. On Saturday the 18th there will be class luncheons at noon, and in the evening the annual alumni dinner. Arrangements have been made for a tea for the ladies at Hotel Plaza and during both days the Technology Club, 17 Gramercy Park, will keep open house. The date was selected because on Wednesday and Thursday of that week the American Society of Civil Engineers holds its annual meeting in New York, and because at that time the Automobile Show will be in full swing. It is expected that between six and eight hundred Tech men will be present. Special trains will run from Boston and possibly from Philadelphia. Mr. Hurd wanted it distinctly understood that the New York committee did not want to make any arrangements whatever without the approval of the Alumni Association and its Council, but he believed that acceptance of the invitation on one hand and the endorsement of the Technology Clubs Associated on the other, would broaden the association and would be a great benefit to the association and to all the local clubs. The speaker read letters from a number of the associations, heartily endorsing the scheme and promising to do all they could to make their delegations large ones.

Mr. King seconded the remarks of his colleague and said that the enthusiasm that existed in New York, backed up by the hearty endorsement of the Alumni Association, would carry the enterprise through with complete success. He spoke of the great work being done by the New York club, which on January 1st had a membership of 534 and which has now been increased to 900. This mid-winter reunion is a new idea and will appeal to a great number of men. The Technology Clubs Associated, he said, would give a new force back of the Alumni Association and the Institute.

The whole matter was fully discussed by the members present

and was referred to the executive committee with power. The executive committee promptly accepted the invitation of the New York club and made arrangements with the delegates so that work can be begun immediately. The question of forming the Technology Clubs Associated was also fully discussed. There was some little question as to the wisdom of having such a body at first, but when it became understood that its office was purely social, the movement was heartily endorsed by the Council.

Planning the New Technology

The problems presenting themselves to the Institute are absolutely new and are of such a character that much thought and investigation must be given to the plans before a pick is struck or a nail driven. Technology is about to blaze a new trail for other institutions to follow. All through the summer and fall, scouts of the departments as well as special engineers connected with Mr. Freeman's office have been investigating all the college buildings erected in the United States during the past twelve years. This has been done carefully and systematically; photographs, plans and maps have been made and careful notes prepared.

This is the only comprehensive survey of the kind that has ever been made. The President has been personally investigating foreign institutions, and the alumni and the Walker Memorial, gymnasium and dormitories is practically making a business of this work in the same thorough manner as is being done by the other committees. The only visible work thus far accomplished have been a series of borings on the site, which extend down to bed rock and which have been made under the direction of Mr. Freeman, '77, and Professor Crosby, '76. Arrangements for filling in the land are being made under the direction of J. W. Rollins, '78, of the building committee. The amount of information, reports, maps, photographs, etc., that have been collected is something enormous and is now being gone over and carefully collated. It will take some time before all the suggestions have been correlated and considered with reference to the general plans. It is sufficient to say, however, that all this preliminary work is being done in the most thorough manner not only by Mr. Freeman, who is giving his individual time to it, but by members of the Corporation who have knowledge of the subject.

PROFESSOR CONSTANT DÉSIRÉ DESPRADELLE

The passing of his personality and influence a great loss to architecture—Notable achievements of this great French architect so long identified with Technology

Professor Despradelle died September 2, 1912, mourned by every one who had the great privilege of knowing him. To his preëminent genius was associated a personality which inspired all those under his leadership with devotion and loyalty. No pupil left Technology without a love for his master and the deepest respect for his teaching. None will return without a sinking of the heart that he is gone.

Constant Désiré Despradelle was born in Chaumont, France, May 20, 1862. After a thorough academic preparation he entered the École des Beaux Arts, Paris, at the age of twenty, where he was admitted first among one hundred and forty candidates. From 1882 to 1889 he was a student of architecture at that great national school of the Atelier Pascal. From the beginning his progress was marked with brilliant successes. In 1884 he was awarded the Prix de la Société Centrale des Architectes Français, and in the same year he won the famous Rougevin, Deschaumes, Edouard Labarre, and Bouwens prizes. In 1886 he received the diploma, Architecte Diplômé du Gouvernement, familiarly known as the A. D. G. In the Concours de Rome of 1889 he took the highest rank, with the title Premier Second Grand Prix de Rome. In this same year he became Lauréat de l'Institut de France.

Next followed a period of continental travel, after which M. Despradelle was appointed assistant architectural inspector for the French Government. He soon became inspector, and later collaborator of Public Buildings and National Palaces, with headquarters in Paris. In this last capacity he was employed upon numerous important edifices, such as the Ministry of Agriculture and Commerce, the National Library, the Bank of France, the residence of President Grévy, etc. In the midst of this busy life he still maintained an active interest in the École des Beaux

Arts, and in the Institut de France, taking part in the higher grades of their academic competitions.

His career was thus already well founded by notable achievement when, in response to a call to further the progress of his art and profession by teaching here the educational methods developed in his own country, he left France to accept the position of Rotch professor of architecture at the Massachusetts Institute of Technology. He came here in 1893, and in the past nineteen years he devoted himself to instruction in architecture, maintaining at the same time active practice of his profession in his new environment.

Even while in America the French government followed his career with satisfaction, for in 1899 Professor Despradelle was made Officier d'Académie. In 1900 he was awarded the first gold medal of the Paris Salon for the design of a monument, the "Beacon of Progress," to glorify the American nation. The award of this medal placed him "hors concours," and two drawings of this design were purchased by the government for the Luxembourg—a rare honor for an architect. In this same year, 1900, he was made Officier de l'Instruction Publique. In 1910 he was elected Membre Correspondant de l'Institut de France, Académie des Beaux Arts, one of the highest honors that can be conferred by France.

In the practice of his profession in America he was also the recipient of many honors. In 1899 he received one of the first awards of the Phoebe Hearst Competition for the University of California, and later he was made a member of its permanent board of advisers. In 1901 he was appointed consulting architect of the new building of the Boston Museum of Fine Arts. In collaboration with his partner, Mr. Stephen Codman, he designed numerous private buildings, factories, office buildings, hospitals, etc., and won among recent competitions of importance that for the Peter Bent Brigham Hospital in Boston. As an architect his talent was unusually fertile and original, with a quality of noble poetry which is found expressed with such art and cultured skill in his "Beacon of Progress," as to place this work in the first rank of truly great architectural conception.

In 1910 his great ability as a teacher coupled with his high professional training brought him the appointment of Special Lecturer on Architectural Design at Harvard University.

It has been well said that such noteworthy honors as Despradelle received during his lifetime fall to few men, but his more enduring fame will be owing to the vitality and enthusiasm of his teaching, and his understanding of the function of a teacher. To inspire his pupils and respect their different artistic personalities seemed to be the foundation of his system. An indefatigable worker, he expected as much from his pupils as from himself. The charm and sympathy in the make-up of his character endeared him to them all and their desire for his approval was always sufficient to arouse their enthusiasm and to inspire them to do their best. And so he taught an army of students the true manual of architecture, sending them forth to civilize by beauty. It would take a map of our whole country to follow the campaigns of all of them.

He died all too soon but he has left us a noble heritage, a great inspiration, and a loyal and devoted body of young men to make it enduring.

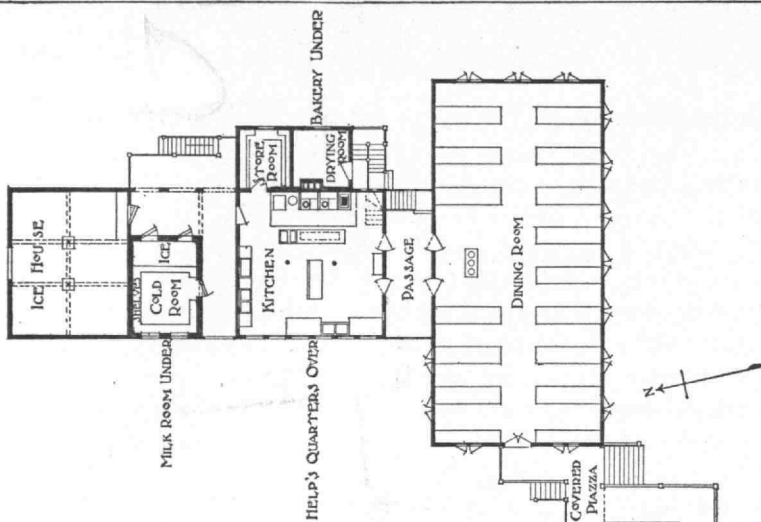
The "Beacon of Progress," "Dedicated to the Glory of the American People" is again and will remain witness to the willing gift of his constant and indefatigable effort, and his remarkable sympathy for effort in others. Pupil, friend, collaborator or acquaintance who has enjoyed this sympathy, will feel deeply the loss of his presence among us, and will appreciate the increasing debt to France, when we add to the names of Frenchmen, already here honored and revered for the teaching of Liberty and Progress, the name of Despradelle.

F. W. CHANDLER.

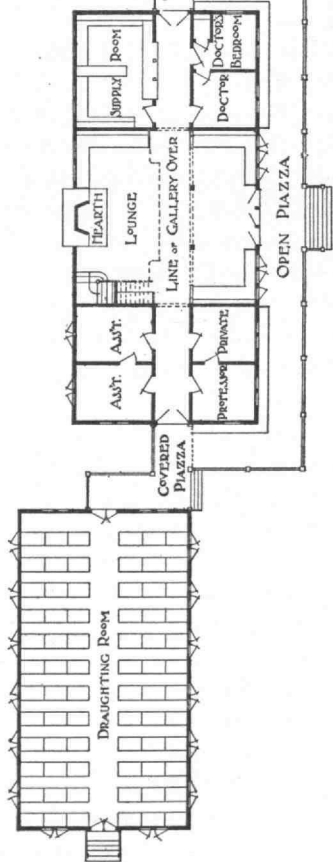
Wins Beaux Arts Prizes

Charles Everett, '07, of Boston, has been notified by l'École des Beaux Arts, Paris, that he has captured the 500-franc prize and gold medal, the highest architectural diploma prize given to the graduating class of this school in Paris. His success has brought Mr. Everett general congratulation in architectural circles in Boston, as well as from other sources. He was graduated from Harvard in 1905 (*magna cum laude*) and afterwards studied at the Massachusetts Institute of Technology and then was graduated from the Beaux Arts, after a four years' course of study. Since his return to Boston he has been connected with the architectural offices of Parker, Thomas & Rice, in State street.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
 SUMMER SCHOOL OF CIVIL ENGINEERING
 AT GARDNER'S LAKE, EAST MACHIA, ME.
 NICHAM AND HOPKINS - ARCHITECTS.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN

PLAN OF OUR "NEW SUMMER CAMP."

OUR NEW SUMMER CAMP

Log of the first season of the summer school of Civil Engineering—Model Plant established by alumni, appreciated by Professors and Students—Social Side of Students life benefited

The Technology summer surveying camp was opened for the first time on August 6 of this year, when a body of seventy-two students of the class of 1914, accompanied by thirteen members of the instructing staff, took enthusiastic possession of the new camp near the village of East Machias in the extreme southeastern corner of Maine within a few miles of the Canadian border. Here, through the provision of generous alumni, the civil engineering department has been provided with 800 acres of land bordering for two and one-half miles on a beautiful lake and admirably adapted for field instruction in land and water surveying. Not content with this liberal gift of land, the donors have also provided a group of camp buildings for purposes of instruction and sustenance, a village of sleeping tents, a complete water supply and sewerage system, and a gas lighting plant which arouses the interest of the inhabitants for miles around.

This extensive tract of land—the largest piece of real estate owned by the Institute—lies at the edge of a wilderness, and one can go for miles in a northerly direction without passing habitation or meeting other travelers. Moose, deer, and other wild animals are sometimes seen in the vicinity, and the lake offers excellent pickerel fishing, a number of three and four-pounders having been caught by students during the season.

The land consists, for the greater part, of rolling hills covered with second growth spruce, fir, hemlock, maple, and birch, but there is a considerable amount of cleared land, on which it is expected that we shall soon be able to raise many of our own vegetables.

The camp buildings and tents are located on a high gravelly bluff at an elevation of about seventy feet above the level of the lake. From this sightly spot one gets a view embracing miles of

woods, hills, and glistening lake. The main group of buildings is clearly shown in the photographs and plan accompanying this article. The central two-story building is the Administration Building, which contains the necessary lecture rooms and offices together with a few bedrooms for guests. This building also contains a lounge thirty feet square, half of which extends throughout the entire height of the building. The dominant feature of this room is the great stone chimney with its huge fireplace, in which on every day during the past season a fire burned from early morning until the evening bugle call for quarters at ten o'clock.

To the west of the main building (to the left in the photograph) and connected to it by a covered gallery, is a one-story drafting room with accommodations for seventy-two students; to the east is the dining hall with seating capacity on the ground floor for one hundred and sixty-eight persons, and with an instrument room and lavatory in the basement. In the rear of the dining hall are located the service quarters including kitchen, bakeshop, ice house, and sleeping rooms for steward and staff. The sleeping quarters of students and instructors are, for the greater part, in the two parallel rows of tents shown in the photograph. These tents are 11'-6"x 9'-3" in size and are placed on raised wooden platforms. Each tent is furnished with two narrow iron cots with wire mattresses, two cotton mattresses, two chairs, a small mirror, and a table. Some of the tents also contain hand-made furniture of unique designs constructed by the students themselves. During the current year, forty such tents were in use, together with two larger tents each accommodating four men. At the far end of the street-of-tents is a stairway down the bluff constructed by the students to give access to the student-designed and student-built diving wharf.

The water supply is obtained from wells driven near the border of the lake about 400 feet to the west of the main building; from these a supply of clear, pure water of excellent taste is obtained. This water is forced by a pump driven by a gasoline motor to a concrete water tank supported on a concrete cylinder which rises from the midst of a group of spruce trees. Pressure sufficient to force a 2½" fire stream over the top of the highest building is obtained.

The lavatories and kitchen are directly connected with a sewer running to an Imhoff tank located some distance to the north of



One of the Tents—"Fishermen's Rest"



The Street of Tents



Going to Church at East Machias



Camp Wharf

the building. This is one of the first Imhoff tanks to be put into operation in New England, and not only serves to provide a safe and inoffensive method of handling the sewage, but also affords an excellent opportunity for sanitary engineering students to obtain a working knowledge of the action of such a tank.

Artificial illumination is by means of Blaugas which comes to the camp in liquid form in steel bottles each about eight inches in diameter and five feet high. One of these bottles lasts from two and one-half to three nights. The substitution of a full bottle for an empty one can be accomplished in two or three minutes. This gas is used with Welsbach mantles, and gives a light of agreeable color and unusual steadiness.

Attendance at the camp during this year was made optional, partly to prevent possible injustice to those choosing courses in civil, sanitary, or mining engineering before this new requirement involving some additional expense could be advertised, and partly to make the operation of the camp during the opening year less difficult for those in charge. As a consequence, the enrollment consisted of a self-selected group of students who entered upon camp work and life more eagerly than would perhaps have been the case had attendance been compulsory.

From the moment of arrival it was evident that both students and instructors were to work together to make the first session of the camp successful educationally, physically, and socially, and to establish worthy precedents for incoming classes. With the consent of those in charge, a student council was established and committees were formed to control certain phases of camp life. These committees included a House Committee, empowered to inspect the tents each day and report upon their condition, and to take general charge of the assembly room; a Dining Room Committee to voice the student opinion relative to food and service; a Boat Committee to take charge of boats for student use; and a Sports and Entertainment Committee. All of these committees were appointed by, and were responsible to, the student council which assigned their duties and held them to strict account.

Of special importance to camp life was the work of the House Committee, particularly the daily camp inspection with the ensuing publicity given to the condition of each tent, not excluding those of members of the instructing staff. It is quite possible

that the generally excellent condition in which the tents were kept was partly due to this daily inspection and report.

While the field-work required of the class was exacting, particularly in the early days when the men were unaccustomed to long, hard days in the field, it failed to exhaust their energy and it was early decided to give a minstrel show, evening rehearsals for which were promptly begun. Two Saturday evening performances were given, one at the camp and the other at East Machias, the latter being attended by an enthusiastic and crowded audience from East Machias and surrounding towns. A considerable profit was made from this public performance.

The camp ball team had a very successful career, winning two games from the East Machias nine and ending the season by playing an eleven-inning tie game with the locally famous Jonesboro team, said to be the best ball nine in Washington County, and the winner of all its previous contests during the season, including several exhibition games at county fairs. The score of this game was 4-4, the game being called because of darkness. All these games were played on Saturday afternoons at the grounds of the Washington Academy at East Machias, no ball ground having as yet been laid out at the camp.

The only full holiday during the season, Labor Day, was celebrated in the morning by competitive sports, including jumping, distance and fancy swimming, and diving, and concluding with a tug-of-war between the north and south rows of tents. A silver trophy cup was generously donated to the camp by Charles Slocum Gardiner, Course I, 1914, and was won by Charles Ephraim Fox, Course XI, 1914, whose name will be inscribed on it. In the afternoon of the same day the camp was opened to the general inspection of the public and was visited by some sixty people. Refreshments were served during the afternoon and the drafting room was temporarily converted into an excellent dancing hall. The Saturday afternoon ball game, followed in the evening by the minstrel show, and on the succeeding Monday by the field sports and reception, made a pleasant midseason interlude.

The last evening at the camp was celebrated by songs in the lounge, followed by a snake dance around the grounds, in which everything in and about the camp was cheered, including the Imhoff tank. A particularly pleasant feature of the evening was the christening of the lounge as Bemis Hall, in honor of Mr. Bemis

of the alumni committee upon the summer camp, who had visited the camp a few days before.

These various sports and amusements combined with the intimacy of tent life and the close association in the field served to acquaint the students with each other in a manner which years of the casual meetings in class and drafting rooms in Boston would never accomplish. The alumni of the Institute have shown in recent years a strength of spirit and purpose which may perhaps be equalled, but which is probably not surpassed by any other college. It may be reasonably expected that the summer camp will have a marked influence in continuing and strengthening these qualities.

The reader should not for a moment think from the attention given to matters relating to student life that there was at the camp any lowering of the standards of hard work so long maintained at Technology. The location and climate proved to be admirably adapted not only to out-of-door work but also to the indoor office work which had to be carried on with it. While we did not escape entirely from the rainy weather which made the past summer a notably disagreeable one in many parts of the world, our field-work was not seriously interrupted by the rain nor was tent life made unpleasant by it, while hot days were unknown. The records from our self-registering thermometer, which was unfortunately not installed until September 1, show the following conditions: Maximum temperature between September 1st and 25th, 80°. Minimum temperature between September 1st and 25th, 39°. Mean daily average 59.1°.

In Boston during the same period the temperature was as follows: Maximum temperature, 90°. Minimum temperature, 47°. Mean daily average 65.5°.

This comparatively cool temperature made admirable working conditions and a great many excellent results were obtained, including a plane-table survey of the hitherto unsurveyed lake, the location of a proposed railroad line several miles in length, the determination, by soundings, of the depth of a portion of the lake, and the determination of its discharge by stream measurements at its outlet at Chase's Mills. Base-line measurements were also made to serve as a basis for local triangulation, and some progress was made towards connecting the camp station with the United States Coast and Geodetic Survey stations. Besides this more advanced

work, surveys were made of some of the parcels included in the camp property, and field data were secured sufficient to make a good contour map of the land immediately adjoining the camp buildings.

It is the belief of the department that the improvement in quality of instruction given at the camp as compared with that previously given in Boston was marked. In addition to the increased efficiency in instruction, excellent educational results were obtained from the intimate acquaintance with students secured by members of the instructing staff. In a large department like that of civil and sanitary engineering, it has previously been difficult for the members of the instructing staff to become as well acquainted as they would like with individual students. In camp, however, instructors and students met as man to man and learned to know each other well.

The high proportion of instructors to students which has always been observed at the Institute was maintained at camp by a ratio of one instructor to six students. The instructing force consisted of Professors Allen, Burton, Robbins, Breed, Hosmer and Russell, and Messrs. Cremer, Holbrook, Richardson and Sawyer, all of the regular Institute staff; Messrs. Ell and Huxley, both of whom received from the Institute in June the degree of master of science; and Mr. Carl T. Humphrey, M. I. T. '05, professor of civil engineering at Villanova College, Villanova, Pa. A physician, Dr. G. E. Harmon, was also in attendance during the entire session. The writer made several trips to camp during the season and spent in all about three weeks either at the camp or in the immediate vicinity upon matters relative to the camp administration.

In closing, the writer wishes to extend thanks to the Alumni Committee, Messrs. Metcalf, Bemis, and Fay, whose efforts made the camp possible, and whose sincere interest and advice were of inestimable value; to Mr. Charles W. Eaton, '85, who gave so generously towards its construction and equipment; to Mr. Walter H. Kilham, M. I. T. '89, the architect of the buildings, who gave freely of his time and counsel towards the solution of many problems beyond the scope of his own plans; to Mr. Herbert N. Dawes, M. I. T. '93, for his liberal contribution towards the construction, and to Mr. A. R. Gilson of Machias, the general contractor, for the careful construction of the buildings. He wishes also to express his appreciation of the enthusiasm and energy shown by



A corner of Bemis Hall



The dining-room on Sunday



Instructors and students in front of Administration Building



A Fire Drill

his colleagues in overcoming the many difficulties connected with the establishment of the new school, and in particular to Professor Robbins, who went to East Machias as soon as possible after the conclusion of the school year at Boston and devoted himself entirely, until the opening day of the camp session, to overseeing and directing the completion of the buildings, to making plans for securing supplies, and to receiving and transporting equipment.

Much credit should also be given to Mr. R. C. Colton, our steward. He and his staff worked early and late for days before the camp opened as well as during its session. The evidence of his success is best indicated by the gain of weight shown by all who attended the camp.

C. M. SPOFFORD, '93.

Diploma Awarded to the Institute

The jury of the Fifteenth International Congress on Hygiene and Demography has awarded a diploma of merit to the Institute for its educational exhibit setting forth the health work done at the Institute. This exhibit covered nearly four hundred feet of wall space and showed the distribution of former students of the Institute who are now in health work, the result of the milk investigations of the department, phases of Professor Underwood's work, a general idea of the experimental sewage filtration laboratory, the results of the gas investigations by Professor Sedgwick and F. Snyder, Jr., '09, as well as a number of charts showing other investigations, and photographs showing the class-rooms and laboratories.

New Register of Former Students

The new *Register of Former Students* which appeared early in the summer is the most complete publication of its kind that has ever been attempted by the Institute. A comparison of this directory of former students with that published four or five years ago shows a tremendous improvement. The present book has been commented on with great favor everywhere and every Tech man should have one. The book contains 536 pages. It can be had on request.

TECHNOLOGY ITS OWN ARCHITECT

The new problems that face the building Committee and how they are being met—Technology blazing the way for other institutions in anticipating future conditions

Technology's new buildings are still in the mixing-bowl. The process of the compounding provides a lesson which might profit other builders of extensive plants who have hitherto done their experimenting in brick and mortar rather than in the more flexible and less expensive medium of blue-prints.

Six months ago Technology sent its ambassadors to every institution of consequence in America and Europe to examine their recent buildings and their apparatus of professional convenience in order that the new group across the Charles River Basin might begin where the others have left off. These reports are now completed, and the sifting of this enormous volume of detail is the present phase of the building enterprise. The material so collected revealed, among other things, that in educational buildings American institutions are leading Europe both for the skill with which construction and arrangement have been adjusted to the purposes of the structure—lecture hall, laboratory or shop—and in the mere quantity of such work as well. In no country of the world has there been such ambitious building for educational ends as in this, partly because no other nation stands so committed to the policy of popular education, and partly because this policy, uttering itself in public opinion, has mated with a period of commercial prosperity in which it has been esteemed an idealization of money to endow institutions of learning by means of it. In Germany such educational building is done by the state; in France, though not so extensively, the state is also the agent. In England the state does less even than in our own country; but private contribution, while not so lavish as here, has begun to express the local pride in the local universities of the large English provincial cities. Yet the sum of the educational building in all quarters of the United States and Canada is so large as to astonish the officers of Technology themselves.

In the dark ages of college-planning you caused an architect to design you an imposing exterior, into which your class-rooms and lecture halls then crawled as they might. Technology's improvement on this method is the improvement of the tailor-made garment over the machine-sewn. The general group plan, and large portions of the interior scheme of the buildings, will have been sketched out to the satisfaction of the men who are to use this big educational apparatus before ever the architects begin to drape these skeletons with the flesh of pilaster and entablature. The educators will then be in a better position to appraise the value of the architects' suggestions as to interior arrangement. It is even possible that the architects may find their task chiefly that of building suitable and harmonious shells around the internal machinery of buildings already devised by those who best know how the conveniences of their toil can be served. By this method, once the building begins, it can proceed very rapidly. All the experimentation will have been done on paper before trowel is put to brick.

This is decidedly the reverse of erecting an ornamental outside shell and cramming the contents more or less congestedly into it. Incidentally, it notes an avoidance of the dilemma often proposed by the question of the architect as a technical expert, since he is supposed to be able to acquire in a month or two a minute acquaintance with the mechanical requirements of a highly specialized type of plant. He is expected by a process half-divination, half inspiration, to be able to build with equal authority a public library, a biological laboratory and a pumping station in the monumental style. The interior mechanisms of such buildings may make or mar their value quite apart from any question of their imposing exteriors. Technology will have avoided that error, besides charting the course for other institutions which must sail these treacherous waters.—*Boston Transcript*.

Pratt Will Contested

An inventory of the estate of Charles H. Pratt, who willed \$750,000 to the Institute, shows a present value of \$699,000; \$244,000 of this is in personal property and \$455,000 in real estate. The will is now being contested by the next of kin and the case is being tried in the Probate Court. If the will is not broken the money will be paid to the Institute as soon as it has reached the sum of \$750,000.

from Professor Sedgwick's department young men have gone into important health offices the country over. The suggestion came from one of them, for example, Dr. Winthrop Talbot of Cleveland, that hygiene in the factory and in factory management is an important branch of the public health to which too little attention is given by such bodies as the American Association. He showed that while there were sections for vital statistics, laboratory work, sanitary engineering and sociology, there is nothing that will cover the care of the health of workmen, although such men form fully eighty per cent. of the population.

Another interesting and active graduate of the Institute was Dr. E. C. Levy, health officer of Richmond, who infused his personality into the meetings of the municipal health officers and in addition read one or two papers before other sections. Professor C.-E. A. Winslow reported to the laboratory section a standard method for the examination of air, the result of committee work and of the recent extended experiments which he has been conducting with the air of New York City in school-houses, factories and the public streets. Professor George C. Whipple, the New York engineer, an Institute graduate, and now professor of sanitation at Harvard University, urged the importance of filtration of water supply. He called attention to the unfortunate term "sewage purification," which gives to the public, taking the matter literally, the idea that there is true purification, and urged the use of the words "sewage treatment," as expressing the precise situation. He does not believe that any ordinary sewage treatment without filtration can render a water supply safe.

Dr. Earle B. Phelps, professor at Technology, discussed the standardization of disinfectants, Professor Prescott considered the bacteriology and decay of foodstuffs, and Professor Gunn spoke on the much needed coöperation between public health and police authorities.

The State Board of Health was represented at the meetings of the association by a number of speakers, one of them Dr. W. C. Hanson, assistant to the secretary, who noted the need of greater interest in the investigation and control of typhoid fever, a work which the State Board has taken up with great energy.

The examination of clams for evidence of pollution was con-

sidered by S. De M. Gage, assistant to the State Board, the same author with J. H. Spurr discussing the technique of laboratory methods, and again as the sole investigator on the relations of humidification of the air in textile mills. Men outside of Boston were represented by Dr. Francis G. Curtis of West Newton, while the familiar figure of E. W. McGlenen, city register, was constantly to be seen at the meetings on vital statistics, in which he spoke with reference to the registry of births, a specialty which in Boston he has been able to develop to an extent and a high percentage hardly attainable in any other city of the country.

The Technology boys who, under Professor Sedgwick, have learned of Boston ways and methods, came from all over the country to greet their old teacher and to give to the meetings the benefits of their experience. Such men were Kendall of Chicago, Hill, formerly of Minneapolis, MacNutt, health officer of Orange, N. J.; Wells of Montclair, Knowles of Pittsburgh, Gregory of Duluth, Rickards of Indianapolis, Tully of Madison, Wis., Hansen of the State Survey of Illinois, and the dozen men from New York City and its vicinity, together with the Boston contingent, made a notable showing.

Technology Predominated at the Congress

At the Eighth International Congress of Applied Chemistry which marked a new era in the development of the art, Technology representatives on the program were far in excess of any other educational institution. Arthur D. Little, '85, as president of the American Chemical Society, presided at some of the meetings and was one of the prominent figures of the congress. Technology was represented by twenty-five of the papers presented, principally in the section of electrical chemistry, which was the subject of seven of the papers. Among the Technology men or professors who contributed papers were: George A. Whipple, '89; Prof. William H. Walker; Walter A. Patrick, research assistant; Prof. Ellwood Spear; Warren K. Lewis, '05; Jasper Whiting, '89; F. H. Newell, '85; J. A. Robinson, '02; Allan Hasting, '88; Harry S. Mork, '99; George Defern, '95; George W. Rolfe, '95; Hermann C. Lythgoe, '96; C. R. Boggs, '05; Prof. S. Mulliken, '87; Godfrey L. Cabot, '83; Edward F. Hicks, '94; George K. Burgess, '96.

APPOINTMENT OF PROFESSOR DUQUESNE

A Sketch of the accomplishments of the distinguished architect who comes to the Department of Architecture

The vacancy in the instructing staff of the Department of Architecture occasioned by the death of Professor Despradelle has been filled by the appointment for this year of Professor Duquesne of Harvard University. The Department is exceedingly fortunate in obtaining in its emergency the services of a man who was closely associated with Professor Despradelle at the École des Beaux Arts where they both received their professional training, and who will continue the ideals and traditions which Professor Despradelle established during his many years of teaching at the Institute. This act of courtesy on the part of the Harvard authorities still further cements the bond between the two schools of architecture. The great value of such relationship was made apparent during the organization of the Harvard School of Architecture in 1910-11 when a similar position to that now held by Professor Duquesne at Technology was held by Professor Despradelle at Harvard.

For those who may not have learned of the distinguished abilities of Professor Duquesne, now the head of design in the Harvard School of Architecture, we are glad to print the following statement from the *Harvard Graduates' Magazine*.

"Eugène Joseph Armand Duquesne was born in Paris, July 13, 1868. He had a distinguished career as a student. His professional studies began in the École Nationale des Arts Décoratifs, where he was awarded the Prix du Ministre, the Grand Prix d'Architecture and in 1886 the Prix Jay. He entered the École des Beaux Arts in the atelier of the well-known architect, M. Pascal, member of the Institut de France, winning in 1888 the Grande Médaille de Construction. In 1890 he received a first mention in the international competition instituted by the Government of Roumania for a palace for the Senate at Bukharest. In 1891 and again in 1892 he was awarded the grand medal of the Société Centrale des Architectes Français. In 1895 he won the Prix

Lusson and the Prix Pigny of the Institut de France and the Prix Abel Blouet of the École des Beaux Arts, and in the same year competed for the Grand Prix de Rome, receiving "first-second" place. From October, 1896, to November, 1897, he acted as superintendent of construction of the Grand Palais des Champs Élysées, the most important of the permanent buildings of the Exposition of 1900. In 1897 he received the diploma of architect from the French Government—the final degree given for studies in architecture in the École des Beaux Arts—and in the same year he carried out a monument at Précý-le-Thil, to the soldiers who fell in the war of 1870, and won the coveted Grand Prix de Rome of the Institut de France, which sends each year as "pensionnaires de l'Académie de France à Rome" an architect, a painter, a sculptor, an engraver, and a musician for four years' residence, or nominal residence, at the Villa Medici. During the prescribed four years in which Mr. Duquesne held this prize, he traveled extensively not only in Italy but in Northern Africa, in Greece, in Turkey, in Germany, in France itself, and in England.

"In 1905 he opened an independent studio or atelier for students of architecture, and in July, 1906, his educational work received official recognition by his appointment as member of the Jury for Architecture of the École des Beaux Arts.

"In 1906 Mr. Duquesne won the Medal of Honor of the French Ministry of War in a competition for a model regimental infantry barracks, a design which he undertook in coöperation with Surgeon-Major Sabatier. In July, 1908, he was appointed government architect in charge of the restoration and repairs of the palace and gardens of Versailles and the Trianon, a position which he still holds. In the same year he was architect of Machinery Hall at the Franco-British Exhibition in London. He has now in process of construction from his designs the Municipal Theatre at Nancy, a commission which he won in competition in 1907, and a model village of workmen's houses at Mancieulles for the Société de Mines de St. Pierre-mont."

President Maclaurin returned to the Institute the latter part of September after a summer spent abroad largely in investigating scientific schools with a view to getting suggestions for the new Institute buildings.

TECH BOOM IN NEW YORK

Great increase in membership during the year—Plans for enlarging the Club House will soon be put into effect

MEMBERSHIP.—The campaign for a membership of 1000 by the end of the year is being prosecuted by Gardner, '98, chairman of the membership committee, and his associates, with a vigor that promises success. On January 1, 1912, the club had 534 members. On October 19, 1912, the number had increased to 910, an increment of 70 per cent. During one week in September, 120 new members were added. At the same rate of increase which has held for the first nine months of the year, 7 per cent. a month, we should have 991 members by the end of the year.

We want a 1000-member club to represent Technology in the metropolis and to give to Tech men the advantages of a first-class metropolitan club. We have not a 1000-member club today, we have a 500-member club; old and new members must be patient and stick by us while the plans for the future are being worked out. If we can get 1000 members we will have a club that will rank with the real clubs of New York and will be something that every Tech man may be proud of.

ASSOCIATED TECHNOLOGY CLUBS REUNION.—In pursuance of a resolution of the Board of Governors a committee was recently appointed by the president of the club to investigate and report upon a suggestion that this club celebrate its tenth anniversary by holding a meeting of all the Technology clubs of the United States in New York City during the early part of January, 1913.

The committee took the matter under consideration, and made a report favoring the suggestion and recommending a plan of celebration covering two days, and suggesting various details which might be appropriate. Thereupon at a special meeting of the Board of Governors, held September 30, 1912, the report was approved and the following committee was appointed to elaborate and carry into effect the plan suggested:

Mr. Benjamin Hurd, chairman, Mr. C. M. Joyce, Mr. Charles

Neave, Mr. Allston Sargent, Mr. Bradley Stoughton, Mr. Gerard Swope, Prof. C.-E. A. Winslow.

The date of this notable reunion will be January 17 and 18, 1913. The general plans of the committee contemplate a mass meeting for the organization of the Associated Technology Clubs on Friday afternoon, January 17. On Saturday, the 18th, the various classes will hold their own reunions at various hotels and restaurants and in the evening the festivities will close with the alumni banquet, which will be one of the largest Technology gatherings ever held at any one place and time.

THE CLUB HOUSE.—The owners of the present club house at 17 Gramercy Park have verbally agreed to a lease for fifteen years with a renewal option for five additional years, at a satisfactory rental. The actual lease has not yet been signed. A draft has been submitted by the owners and certain changes have been suggested by the club, in regard to which the parties have not yet come together, but there is no reasonable doubt but what the lease will be made before long for the term above specified.

Mr. Abbott is chairman of the committee which has in charge the financing of the contemplated building operation, but for the present the governors are considering certain minor changes which will enable the club to more adequately meet the needs of its new members. It is planned to bring some small tables and the magazines down into the front room on the first floor, so that it may serve as a reading and smoking room, the present library being kept as a quiet room.

NOMINATING COMMITTEE.—The following nominating committee has been appointed to nominate officers of the club for the coming year: W. H. King, '94, L. L. Dexter, '09, J. C. Boyd, '93, D. W. Edgerly, '98, G. A. Orrok, '89, N. A. Richards, '05, K. Spalding, '89.

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they show the same amount of interest in Technology as do the larger donations.

The last report of New York said over \$24,000 subscribed. We should more than double that by the first of January, 1913.

HOUSE COMMITTEE.—The club is rapidly becoming the general meeting place for all Technology men, and our list of visiting Tech men and non-resident members is increasing daily. If every Tech man in and around New York would interest himself in the club to the same degree as does the loyal crowd now in harness, we would have the best college alumni club in New York City.

Our membership is increasing daily and our facilities for keeping men interested in the club depend on a large daily attendance. If Tech men would realize the value of the club to them, we would have every New York Tech man as a daily visitor. Nothing pleases the house committee or the servants in their charge so well as a large gathering of enthusiastic men.

Come around and help develop Tech optimism.

A Satisfactory Enrollment

The enrollment of students at the opening of the Fall term this year numbered 1460, a figure that has only been surpassed once at that date. This does not include students who come here for special work, usually numbering about 75 who had not registered at that time. An interesting feature of the enrollment is the large percentage of students who have returned to continue their studies in regular courses. 85 per cent. of the third year students of last year have returned to enter the senior class. This is an unusually satisfactory showing. In this registry are more than 500 men who are new to the Institute. As usual there are a large number of countries represented and the distribution from various states in the Union does not vary much from previous years. It seems quite likely that the number of students from other colleges will exceed previous records. There were nine women enrolled this year. The definite figures of registration cannot be given until later.

CHANGES IN INSTRUCTING STAFF

The Corporation of the Institute have confirmed the following appointments and changes in the instructing staff:

PROMOTIONS. The promotions are, Associate Professor Charles H. Warren to be professor of mineralogy; Assistant Professor Hervey W. Shimer to be associate professor of paleontology; Assistant Gordon B. Wilkes to be instructor in heat measurements for two years, and Professor W. H. Walker to be in charge of the course in chemical engineering.

NEW APPOINTMENTS. The new appointments are Herbert W. Smith, instructor in English for two years, replacing Mr. Gunn; F. H. Lahee to be instructor in geology, replacing Dr. Loughlin; and Orie William Long and Paul Robert Leider, each for one year instructor in German in place of Mr. Blachstein, on leave of absence. W. R. Barss is appointed instructor in physics for two years, replacing H. H. Marvin; C. E. Morrow is appointed full-time instructor in architecture, replacing Mr. Cory, half time; and Randall Cremer, E. C. Holbrook, W. E. Richardson, W. L. Collins and G. S. Sawyer are to be assistants in civil and sanitary engineering for one year, replacing Messrs. Benton, Ireland, Manley, Morrison and Parker. James D. McKenzie becomes instructor in geology for one year in place of Mr. Goodspeed; Paul M. Taylor is assistant in analytical chemistry for one year and Eugene T. Marcceau the same position, replacing J. V. MacDonough.

In mining engineering and metallurgy, Ralph L. Bartlett, assistant for one year, replaces T. G. Chapman; in theoretical chemistry, Bertrand F. Brann is appointed assistant for one year, and Bartow V. Reeves, research assistant in applied chemistry for eight months. Charles B. Rowley is appointed assistant in heat measurements for one year, replacing Mr. Wilkes, promoted. In mechanical engineering there are a number of changes, D. J. McGrath, Kenneth C. Robinson and D. M. Taylor being appointed assistants for one year, replacing Messrs. A. L. Gardner, C. A. Robb and H. W. Waterfall, respectively. Luis R. Gonzalez is appointed assistant in physics for one year, replacing J. P.

Maxfield, promoted, and James H. Ellis becomes assistant, replacing K. D. Fernstrom.

Professor James Knox Taylor was appointed professor in the department of architecture and becomes head of the department, and Professor Waldemar Lindgren is appointed William Barton Rogers professor of economic geology and in charge of the department of geology.

REAPPOINTMENTS. The following were re-appointed for one year, being assistants in the several departments: Ernest C. Bent, professor's assistant in chemistry; N. S. Marston, electrical engineering; H. M. Mosher, chipping and filing; Harry G. Davies, wood and foundry work; Arthur B. English and James T. Shorrock, machine tool work; T. H. Haines, R. G. Adams and J. S. Beamensdorfer, mechanical engineering; L. A. Salinger (half-time), food analysis, and Miss Ruth M. Thomas, research assistant in organic chemistry.

Tech Experts for Great Britain

Professor D. C. Jackson, head of the department of electrical engineering, has been granted leave of absence until January 1, in order that he may go to England at the request of the British Government, which is considering the purchase of all the telephone companies in Great Britain. Prof. Jackson has been connected with this work for about a year and during the summer has been actively engaged. It is interesting to note that Hammond V. Hayes, '85, formerly chief engineer of the American Tel. & Tel. Co., has been retained as expert for the various telephone companies involved. About 1500 telephone exchanges and half a million subscribers, involving a capitalization of \$60,000,000, are concerned in the transaction.

Lectures on Aeronautics

A series of lectures was begun this year under the auspices of the department of mechanical engineering. The attendance at these lectures is obligatory on the students taking the course in naval architecture, otherwise it is elective. Mr. Albert A. Merrill, an authority and individual investigator in the problems of aviation, has been chosen as the lecturer.

MINING SUMMER SCHOOL

In 1912 the Summer School of Mining covered considerable territory and a wide range of operations. A party of six students in charge of Professors Locke and Hayward first spent two days at Mineville, New York, where the iron ore mines and the magnetic concentration plants of the Witherbee Sherman Company are located. The next stop was for only one day at the plant of the United States Metals Refining Company at Chrome, New Jersey. The operations studied here were copper smelting and converting, and the electrolytic refining of copper and silver. The party was joined here by Instructor Chapman. Two days at Franklin Furnace, New Jersey, with the New Jersey Zinc Company gave the party an insight into the mining of a large body of zinc ore and its concentration both by magnetic and wet methods.

At Pottsville, Pennsylvania, three days were devoted to the operations of mining, breaking and washing of anthracite coal and the manufacture of coal briquettes, including collieries of the Philadelphia & Reading Company, and the Lehigh Coal & Navigation Company. Two very interesting features here were an evening spent with the Eastern Steel Company in their open-hearth steel plant and rolling mill and a visit to the burning anthracite mine near Lansford.

One day at Northampton, Pennsylvania, at the plant of the Atlas Portland Cement Company, and two days at Palmerton, Pennsylvania, completed the first stage of the trip. At Palmerton the New Jersey Zinc Company has its smelter, producing spelter, zinc oxide, and spiegeleisen from the ores which it mines at Franklin Furnace.

The party divided at this point and Professor Locke with three students continued on to Canada, while the remainder of the party scattered to their homes.

Sunday was spent at Niagara Falls and then the journey continued to Cobalt, Ontario, to see there the mining of high grade silver ores occurring very irregularly in thin seams. Both the Kerr Lake and Nipissing Mines were visited. At the latter the party was fortunately able to see a hydraulic giant in operation

washing off the whole surface of the hill and exposing the ore veins in the bed rock. Silver cyaniding and refining was studied in the Nipissing "high grade" mill and concentration in the Northern Customs Concentrator. A new large "low grade" cyanide mill under construction by the Nipissing Company was a novel sight.

The last stand was for two days at the new Porcupine gold camp, where the mines visited included the McIntyre, Pearl Lake, Hollinger, Dome and Vipond, and the mills, the McIntyre, Hollinger, Dome and Vipond. Since these are new, it gave the party an opportunity to view the latest practice in the stamp milling and cyaniding of gold ores.

The summer school trip of this year is considered to be one of the best ever held in point of variety of operations seen and of opportunities granted by the managements in charge. The thanks of the party and of the Institute are due to all the managers and to all the former students who by their uniform courtesy and favors contributed to this success.

CHARLES E. LOCKE, '96.

Broadening Alumni Policy

The holding the annual alumni dinner in New York marks a new departure in alumni policy. The Institute is not a Boston institution, but a national one; and there is no good reason why the annual meeting of the association should not be held where the largest number of Technology men can be reached. It is, of course, necessary for the active officers and the members of the Alumni Council to reside where they can be brought together quickly to discuss or decide on the affairs of the association, but when Denver or St. Louis, or Seattle can muster together more members than can be convened in Boston there will be good reason for holding the dinner at any of those places. The local New York committee coöperating with the banquet committee of the Alumni Council is making such arrangements that no Tech man within striking distance of New York can resist the temptation to be present at the reunion, January 17 and 18. New York is becoming a wonderful center of Tech men. The doubling of the membership of the Technology Club and the possibility of a new and commodious club building along modern lines in the near future makes it imperative on every loyal Institute man to do everything in his power to make this gathering an unqualified success.

ALUMNI ASSOCIATIONS STIRRING

Pittsburgh has a live "Booster" Committee—Clam bake at New Bedford—Northern Ohio and Cincinnati have memorable Field Days—Annual Wash of Connecticut Valley Association—New Inter-Mountain Club about the liveliest of all

PITTSBURGH ALUMNI ASSOCIATION.—The season 1912-1913 of the Pittsburgh Association will consist of a schedule of four meetings. The first meeting will be held Nov. 6 at the University Club, Grant Boulevard and will consist of a smoker and housewarming. The second smoker will be held about January 4, 1913.

The annual dinner is planned for the last part of February or early March, 1913.

The last smoker of the season will appear about the middle of May. These dates will be observed as closely as possible, and all "Tech" men visiting the city are requested to make an effort to attend our meetings. Call the secretary any time for information.

Officers for 1912-13 are: president, Fred Crabtree, '89; vice-president, Morris Knowles, '91; secretary-treasurer, L. K. Yoder, '95; executive committee, W. E. Mott '89, Edward Seaver Jr., '01, H. A. Rapelye, '08; alumni representative, Sumner B. Ely, '92,

The executive committee have authorized establishing an office of assistant secretary, whose duties will consist of districting the Pittsburgh territory, and appointing a "booster" for each district. These "boosters" will be held accountable for the "Tech interest" of the men allotted to their charge.—An effort is being made to publish in the Sunday papers of Pittsburgh the principal items of Tech interest or news which will be collected from the numerous bulletins issued by the publicity bureau at Boston.—Maurice R. Scharff, '09, has returned from Birmingham, Alabama, and is now connected with Morris Knowles, '91, civil engineer, Oliver Building, Pittsburgh.—Norman C. Nicol, '09, formerly of New York is now connected with the Carnegie Institute of Technology, Pittsburgh.—Frederick R. Sites, '99, is with us again and connected

with the Carnegie Steel Co. at Homestead Works.—Edmund S. Campbell, '07, Carnegie Institute of Technology, has returned from Europe and will be with us this season.—J. Laurence Lyon, '04, has left Brooklyn, N. Y., and located in Pittsburgh with the Standard Underground Cable Co., Westinghouse Building.—Samuel S. Rodman, '10, has joined our ranks and may be found at Donner, Childs & Wood, Union Bank Building. Our roster now numbers 180 men, and we are all looking forward to an enthusiastic season for the interest of Tech.

A "Pittsburgh Tech Field Day" is being planned for the early spring of next year. Mention in detail will be made later.—*Luther K. Yoder, '95, Secretary-Treasurer, 5810 Murrayhill Place, Pittsburgh, Pa.*

WASHINGTON SOCIETY OF THE M. I. T.—The members of the Technology Club of Washington are just beginning to awaken from their summer siesta and interest is being centered around the new University Club building which is nearing completion at McPherson Place and I Street. This new and modern building of the club will be opened about December first and we expect to hold our monthly smokers there throughout this winter and also an annual banquet. At a meeting of the executive committee of the local club it was voted to purchase a stone on the façade of the new University Club building upon which the Technology seal will be carved. This custom is being carried out by all the local alumni clubs of the various colleges and we feel assured Tech will have a position worthy of her prominence in the collegiate world. Our monthly meetings will start the first week in November and we hope to get an enthusiastic crowd of Tech men out each month.—*Clifton N. Draper, '08, Secretary, 1860 Columbia Road, Washington, D. C.*

THE TECHNOLOGY CLUB OF NEW BEDFORD.—The Technology Club of New Bedford met September 5 at the bungalow of George H. Nye, near Horseneck, for the annual mess of clams and lobsters, baked on stones raised on the place, and covered with seaweed from the shores of Allen's pond. Besides the clambake there was a ball game and a tug of war.

The gathering proved to be a little reunion for '85 as well as the annual outing for the New Bedford Tech men. Mr. Nye had as his guests Frank H. Page of Springfield, who spends his summers

"Over Jordon" at Onset, where '85 recently held its annual reunion under most delightful conditions, after the limes arrived from New Bedford. Mr. Page has recently given Tech island in Buzzards Bay to the alumni of the Institute, and within a few years it is hoped to have a club house erected there.

I. W. Litchfield, also of '85, and R. H. Pierce, both of whom were at Salters Point, were also Mr. Nye's guests, and in the absence of Mr. Dowse, who always keeps '74 to the fore, '85 had the right of way.

Those present at the bake were Frank H. Page, I. W. Litchfield, R. H. Pierce, George H. Nye, Dr. C. R. Hunt, Theodore F. Tillinghast, Morgan Barney, C. F. Wing, Jr., E. H. Wing, Charles L. Faunce, J. L. Braley, Jr., Ira M. Chase, Jr., Clifford L. Wade, William H. Fox, S. C. Hathaway, W. A. Robinson, Jr., James A. Stetson, William S. Anthony, David W. Beaman, Charles S. Ashley, Jr., Albert R. Pierce, Andrew G. Pierce, Jr., Alexander Hicks, P. F. Young, F. H. Peabody, Chester A. Vose, C. F. Lawton, B. A. Tripp, E. Norris Milliken, Alfred Milliken, Albert C. Sherman, Jr., Allen K. Weeks, F. E. Earle, James S. McIntyre, R. A. Swan, Walter Whitehead.—*New Bedford Standard*.

THE CINCINNATI M. I. T. CLUB.—The annual summer outing of the Cincinnati M. I. T. Club was held on Saturday, June 22, at Crystal Lake, Rylands, Ky., where we were the guests of Colonel West, president of the Kentucky Gun and Fishing Club.

This place was the scene of another such outing two years ago, when such a fine time developed that we were most pleased to accept it on a second occasion. The weather man again seemed to be testing our club's resolve to recreate, as we had a repetition of the rainy weather of last year for a couple of weeks ahead; but seeing that we were going, rain or shine, he decided to give us the shine, and it was a perfect day.

Unlike some of the other alumni clubs we were not able to get our members to forsake business for more than one day, so could not make it a "week end" party. Instead, it was found that by taking the "family" along, the day was made to do double duty.

On reaching the clubhouse the first order of the day was "strip for action," and the members of the "Steam Roller" and the "Progressive" base ball teams prepared for a mighty conflict.

Some strong discussions arose relative to the articles of war, some insisting that the regulation ball was too tame and that a five-inch ball should be used. The former prevailed. Again, whether right- or left-handed batting should be allowed, which showed that on ordering left-handed style, that a number of our fellows could do equally well either way (or badly if you prefer). Then the big question arose "Is three strikes out or can you run for it?" Hooker, the catcher for the Progressives (also in charge of the outing), maintained that if a fellow whiffed three times he would be out or he (Hooker) wouldn't catch. As Hook was the only man on that side who had the nerve to catch Captain Lee, that rule was also allowed. It was unfortunate that some of the National League scouts were not in that vicinity at the time or our club might now be in the big league. Ask Stanwood what he thinks of some of the coaching. Lockman for the Steam Rollers made some sensational one-hand catches while Garber, their catcher, was almost put out of the running by an attempt to prevent Barlow's stealing home when the third baseman hit him on the elbow instead of the glove. By intimidating the umpire, who was temporarily a cripple, and the score keeper, who is a mild-mannered man, the Progressives reversed the Chicago convention and won the game.

Then in order to relieve the strain of the game the crowd proceeded to the lake to take a dip. Here was the place where your humble servant almost ceased to exist, as some of the wild Indians threatened his submersion in citizen's clothing to even up for attempts to get contributions for the Alumni Fund. As his aquatic abilities are principally negative his thoughts ran to the troubles of his unlucky successor when Litchfield and the headquarters gang start their fall campaign. Through the kind offices of the fair maidens present, his Ingersoll and tobacco were rescued. Some other kind friends finally prevented the drowning.

Rapp's preparations for comfort in the nature of a towel made a very good substitute for a ball in water polo much to his disgust.

When the more sedate were exhibiting their prowess with the oars, Kruckemeyer and Ransohoff attempted to reproduce feats of the Charles, but managed to upset gracefully and made handsome sights in the costumes they scraped together.

After a mighty fine chicken supper with all the trimmings and a moonlight song service we held up the Jacksonville express and

reached the city in good order, that is all but Merrell—he managed to accumulate his annual sprained ankle, much to his disgust. Dixon on this occasion had a few more privileges than when he appeared at his first outing just off his honeymoon, but still he had to eat with his coat on. Feenester did not seem to chafe very much even though we did perform under the eyes of his bride, but he did put up a poor excuse of a game of ball. Just to show that they still had boats, Proctor and Hooker had their regular discussion on the relative merits of their motor boats.

The crowning feature of the trip was the presence of an out-of-town member, Hildabolt, who came with his sisters; we have found that we can have more certainty of his appearance when his notices are sent to them than when he gets them himself. This seems to be true of Carlisle also as he was with us after having missed several trips. Altogether the forty-five or so who went on the 1912 outing seemed to be thoroughly of the opinion that these outings are a great thing to look forward to, and they talk already of one another year, at which there will be a kindergarten department. Regular lunch on Tuesday at the Bismarck Grill, 12 to 1.30.—*Stuart R. Miller, '07, Secretary, 3366 Morrison Avenue, Clifton, Cincinnati, O.*

SAINT LOUIS SOCIETY OF THE M. I. T.—On Friday, July 26, 1912, the St. Louis Society conducted a hike through Delmar Garden, preceded by mess at the pavilion, the object of the maneuvers being primarily to test the resources of the Delmar commissary, and, secondarily, to ascertain how many Tech men would turn out to see Creatore and hear his band.

The Tech flag was raised in front of the pavilion at 6.30 P. M. and nine men followed it to the mess table. As a reconnaissance in force the movement was not impressive, but as a scouting party the expedition was an unqualified success. Led by Klipstein, '94, nothing in the garden escaped scrutiny; the moving pictures in the lulls between the onslaughts of the band were passed, though they naturally bored; the commissary stores were sampled and judged acceptable if not exceptional, both in temperature and taste; the backety-back automobile roller-coaster was given a live load running test and found to be of high fractiousness and exceeding the speed limit; the real sand bathing beach and waterfall were inspected and found to be

genuine if the bathers were not all ingenues; and the secretary's white costume was indelibly stamped with approval as a summer symphony, modish but modest. Those who participated were E. C. Klipstein, '94, George R. Wadleigh, '97, A. M. Holcombe, '04, C. M. Emerson, '05, Robert Inglee, '09, E. L. Brown, '09, M. M. Cory, '12, J. Desloge, '12, and M. Desloge, '12.—*Amasa M. Holcombe, '04 Secretary-Treasurer, 510 Pine Street, St. Louis, Mo.*

TECHNOLOGY CLUB OF THE CONNECTICUT VALLEY.—The Connecticut Association held its annual meeting the last of June. Thirteen men left Hartford on the boat at five o'clock on Friday, the 28th; we had dinner together on the boat and reached Fenwick about half-past eleven. Three others were there to meet us. Some of us took a swim in the salt water and then retired to rest up for the baseball game Saturday morning. This baseball game on Saturday was a great success, two complete nines being on the field.

The banquet and business meeting was held at the yacht club Saturday noon, twenty-seven members being present and paying their dues for the coming year. On account of ill health, our president, Mr. Eben Stevens, '68, was unable to be present.

We had the usual good time this year; only those who have been present at one of these outings can realize the rest and fun to be derived from them.

Three men have perfect attendance records, having been to all of the Fenwick meetings. We hope that next June others will be able to join the regulars.

The officers for the year are: president, Eben Stevens, '68; secretary and treasurer, Ernest W. Pelton, '03, 77 Forest Street, New Britain Conn. The secretary wishes very much that any one living in the territory of the Connecticut Valley Association and not receiving notices would send in his address, so that he may be notified of the next meeting.

The secretary took a large supply of the new Tech buttons to the meeting at Fenwick and sold all he had. The buttons were voted a great success.—*E. W. Pelton, '03, Secretary, 77 Forest Street, New Britain, Conn.*

INTER-MOUNTAIN TECHNOLOGY ASSOCIATION.—After several attempts, the Inter-Mountain Technology Association started together

on a bat August 24, 1912. The course was laid from Saltair Depot, Salt Lake City, thence west fourteen miles to the shore of Great Salt Lake, where entertainment had been prepared for all who should dare to run. President Mendenhall, '02, and O. H. Gray, '97, got away with a slight lead at 4.15 p. m.; it is whispered that they had a weighty argument between them all the way, but there are only a few who can vouch for the rumor. Four more Tech men and their ladies were about three seconds behind the leaders, and we steamed on throughout the first lap in the same relative position. On reaching Wonderland, scale one-eighth inch to the foot, J. E. Moore, '07, who was west on business, and lady, joined the bunch. His arrival gave added spirit to the younger members of the party, and they started a sprint that landed them all in the water first. As the name implies, this huge body of water is a saturated saline solution. Lehmarer, '13, had to follow the instructions of his M. I. T. professors and prove it to his own satisfaction. He dove in head-first, and all of us who have done the same in times past can appreciate the strong proof which he found in the taste and the intense smarting sensation that affected his eyes and nose. We wish there could have been a hundred Tech men to have shouted "Come on in, the water's fine," but we did our best to make up for the scarcity of numbers.

The "pièce de résistance" as "Blacky" would say, was our dinner. This was the third time round in our speed carnival. We started it with a long M. I. T. that brought to our ranks L. T. Cannon, '96, and his wife, who had been searching for our party. There were seventeen to grace the festive board. Though located on the lake and fourteen miles from anywhere, Dexter, '08, chairman of the committee on arrangements, had persuaded the chef to prepare a most excellent dinner, which fact is sworn to by all present. For over two hours we talked, ate, and sang the dear old songs. At about ten o'clock the meeting proper adjourned. We danced the last lap, and this one word spells "Condit's" to most Tech men, but believe me we've got a floor at Saltair that has 'em all beat. If you doubt it, come to our outing next summer and we'll prove it, and also the saltiness of the water.—Messrs. V. S. Rood, '07, A. E. Wells, '06, and E. T. Brown, '13, also ran.—It was decided to hold the next meeting some time in October.—*J. C. Dort, '09, Secretary-Treasurer, Box 972, Salt Lake City, Utah.*

TECHNOLOGY CLUB OF NORTHERN OHIO.—Technology men of Northern Ohio, sixty strong, gathered from Cleveland and Akron and surroundings for a grand rally base ball game and athletic meet on September 28, 1912, at the recreation grounds of the Cleveland City Ice Delivery Company at Bedford. Some twelve or fourteen automobiles owned by Tech men brought the party to the field.

Promptly at 2.30 p. m., under the able marshalship of George Glover, '08, the Technology band, led by Bill Jenkins, '09, consisting of a dozen men with zoboes, drum and symbols, ushered into the grounds, to the martial strains of "Take Me Back to Tech," the retiring president, H. B. Dates, who wore upon his head a crown of glory, consisting of a lady's beautiful battered straw hat with several highly colored hen feathers stuck therein. The whole party, attired in caps of variegated hue obtained for the occasion, immediately formed in line, two by two, behind the band and executed the time honored Technology serpentine march around the grounds, ending up with admirable foresight on the part of Glover, in the pavilion, where liquid refreshments were served to all.

At this point the ceremonies of inducting the newly elected president, F. A. Smythe, '89, into office were commenced. Messrs. Dates and Smythe were prevailed upon to mount a table, and before the assembled multitude Professor Dates delivered a speech which will pass down to history as one of the grandest oratorical efforts on record, after which he delivered his crown of office to Mr. Smythe amid loud applause. Mr. Smythe gracefully accepted the tribute, and replied in kind, whereupon with loud huzzas the whole multitude adjourned to the base ball diamond, where the Cleveland Red Sox proceeded to clean up the Akron Giants in two innings of fast and furious base ball, during which the main objective point seemed to be to reach third base. In fact one man, after hitting the ball, insisted on running to third base instead of to first. The ball game festivities were indefinitely postponed when Glover was hit in the eye with a pitched ball. Everybody adjourned for a drink.

Among the other events on the program, P. W. Litchfield, '96, won the fat men's race and was presented with a large and beautiful silver garboon filled with beer. Professor Dates, '94, obtained new honors by winning the thin men's race. The tug-of-war contest went to Cleveland, the best two pulls out of three, thanks to

the superior avoirdupois of the men from the Forest City. Professor Bardwell, '84, won the bottle race in the face of tremendous odds. The golf ball driving contest went to Max Hellman, '96, with the tremendous drive of 11 ft., 6 in., the ball being attached to a small parachute. F. A. Smythe, '89, won the golf ball putting contest after a close struggle with George Merryweather, '96. The Hot Tomale Quartet, also under Jenkins' leadership, rendered Tech songs at intervals during the afternoon.

The events were concluded at 5.30, with rousing cheers for Technology, Mr. Smythe, and the Cleveland City Ice Delivery Co., who had very kindly made the outing possible. Many of the boys adjourned to Cleveland, where they were the guests of President Smythe at supper at the Athletic Club, and later went to see Raymond Hitchcock in the *Red Widow*.

The meeting, program of which is attached, was one of the series of very successful affairs which have been conducted by the live ones in the Technology Club of Northern Ohio, which now numbers over 100 members. Informal lunches have been held from time to time at the Athletic Club, in honor of a number of visiting alumni, and two largely attended banquets have been held since January 1, one at the Country Club in Akron, and one at the Athletic Club in Cleveland. Any Tech men locating in Cleveland will be assured of a cordial welcome from the association.—*Sidney Young Ball, '03, Secretary, 1847 East 97th Street, Cleveland, Ohio*

NORTHWESTERN ASSOCIATION, M. I. T.—A summer garden party of the Northwestern Association of the Institute was held at the Bismarck Garden, Chicago, on August 28. There were about forty of the members of the association present and we had a very pleasant, sociable evening; incidently there was some political discussion and we took a straw vote on the subject of President. When the score was footed up, thirty-two men had voted for Roosevelt, three for Wilson, two for Taft, and one for Debs. We all had a sneaking idea that the fellow who voted for Debs was really a Bull-Mooser, but he took a chance of being mobbed and then would not tell who he was.—*Meyer J. Sturm, '96, Secretary, 116 So. Michigan Avenue, Chicago, Ill.*

TECHNOLOGY CLUB OF PUGET SOUND.—At the regular monthly luncheon held August 3, Mr. Edward S. Webster of the Stone &

Webster Corporation, addressed the members, about twenty of whom were present. The following officers were elected for the ensuing year: Chas. H. Alden, '90, president; Clancy M. Lewis, '99, vice-president; M. P. Anderson, '10, secretary. The first of our monthly luncheons for the season was held September 15 at the College Club, the fixed date being the third Tuesday of each month. These meetings are extremely interesting and although we have a good attendance of local members, we do not feel that Tech men who happen to be in town take advantage of these meetings. Any Technology men who happen to be in Seattle will always be welcome here and at other times individual members will be glad to receive a call from them.—*M. P. Anderson, '10, Secretary, 111 Cherry Street, Seattle, Wash.*

INTER-MOUNTAIN TECHNOLOGY ASSOCIATION.—In connection with the National Irrigation Congress, which was held in Salt Lake City about the first of October, F. H. Newell, class of '85, director of United States Reclamation Service, and Morris Knowles, class of '91, professor of sanitary engineering at University of Pittsburgh, were in Salt Lake City. Mr. Mendenhall, president of the local Alumni Association, arranged for an informal dinner at the Commercial Club on Wednesday the 2d inst., in order that local Tech men might have the opportunity of meeting Mr. Newell and Mr. Knowles. C. S. McDonald, class of '99, was toastmaster. Below is given a list of the speakers, with the general subject which was assigned them: B. W. Mendenhall, class of 1902, subject, "The Theory of Probabilities as Applied to the Recitation of Unprepared Students"; Lewis T. Cannon, class of 1896, subject, "A Method of Determining the Moment of Inertia of Building Committees"; Henry M. Lewis, Jr., class of 1907, subject, "The Locus of a Moving Tenderfoot about a Fixed Point in the Inter-Mountain Plateau"; W. L. Whittemore, subject, "The Duty of Water in Dry Counties"; S. Q. Cannon, class of 1899, subject, "How We Propose to Keep Salt Lake Wet"; Morris Knowles, class of 1891, subject, "The Disposal of Sewage among the Birds"; F. H. Newell, class of 1885, subject, "Technology."

The subjects assigned to the speakers were of such a nature as permitted them to talk on about any subject that entered their minds. The result was that the local speakers outlined briefly what Tech graduates were doing in the vicinity of Salt Lake City

to maintain the high standard of their alma mater, and their ideas as to what stand the Inter-Mountain Technology Association should take to forward the interests of Technology.

Mr. Knowles, after making a brief reference to his work along the lines of public sanitation since leaving the Institute, devoted considerable time to the importance of engineers taking an active part in public service. He spoke of the efforts which he has been making to prepare students to do this in connection with their professional work. He urged local Technology men to launch out in civic affairs, especially those involving the larger problems of water supply, sanitation, public health and the public service.

F. H. Newell, the last speaker, gave a very interesting and amusing account of his life at Tech in the early eighties. This was of great value to the younger graduates present, as it indicated that the boys of those days were not materially different from the boys of today. He then recounted his experiences during the earlier years of his professional career. He spoke of the public service which he had rendered in the reclamation of the country's immense areas of arid land. In conclusion he emphasized the remarks of Mr. Knowles with reference to the importance of technically trained men entering the public service and scouted the statements which are frequently heard that engineers are not business men and are lacking in business judgment. In addition to the speakers, the following men were present: Willard T. Cannon, class of 1899; D. H. Blossom, class of 1888; O. H. Gray, class of 1897; and Walter Reese. The last mentioned is not a Technology man, but is a member of the Reclamation Service, and attended the dinner through his regard for Mr. Newell.—*Gregory M. Dexter, '08, Secretary-Treasurer Inter-Mountain Technology Association, P. O. Box 195, Salt Lake City, Utah.*

TECH MEN IN THE PUBLIC EYE

LUTHER CONANT, JR., '95, formerly deputy commissioner of corporations has been made commissioner of corporations of the Department of Commerce and Labor, Washington, D.C., succeeding Herbert Knox Smith. For the last five years Mr. Conant has been a special examiner of the Bureau of Corporations. He took an active part in the Standard Oil investigation. Prior to entering the Government service he was financial editor of the *New York Journal of Commerce*.

ARTHUR D. LITTLE, '85, president of the American Chemical Society, was a prominent figure during the recent Eighth International Congress of Applied Chemistry at Washington and New York. The conspicuous success of the part the society took in the congress was largely due to Mr. Little's efforts.

FRANCIS WALKER, '92, has been nominated by President Taft to be deputy commissioner of corporations, Department of Commerce and Labor. Mr. Walker is a special agent of the Bureau of Corporations and an authority on economics. He assisted the Department of Justice in its investigation of the International Harvester Company previous to the beginning of the pending anti-trust suit against the corporation. He is a son of Gen. F. A. Walker, the well-known economist and former President of the Massachusetts Institute of Technology.

CARLTON E. DAVIS, '93, has been made engineer of the Bureau of Water, Department of Public Works, Philadelphia, Pa. Mr. Davis was recently the engineer in charge of the Reservoir Department of the New York Board of Water Supplies of the Catskill Aqueduct work. After leaving the Institute he had an extended experience in water supply work. Before going to New York he was engineer of water works and sewers for the Isthmian Canal Commission.

ROBERT H. FERNALD, '96, recently professor of mechanical engineering at the Case School of Applied Science, Cleveland, Ohio, has been selected to become professor of dynamical engineer-

ing in charge of the mechanical and electrical engineering departments of the University of Pennsylvania. Since leaving the Institute he had been connected with Columbia University, University of Washington and the Case School of Applied Science. He has also been engineer in charge of the technological branch of the United States Geological Survey since 1904.

ARTHUR I. KENDALL, '00, has recently been appointed professor of bacteriology in the Northwestern Medical School, Evanston, Ill. After taking his degree at the Institute he was graduated in medicine from Johns Hopkins University. He also holds the honorary degree of doctor of public health conferred on him by Harvard University. At the Northwestern University Dr. Kendall will have charge of research work under the Patten Fund to advance the scientific investigation of the cause and prevention of contagious diseases with special reference to tuberculosis.

LOUIS F. MESMER, '06, has been appointed by Mayor Alexandria of Los Angeles, California, as one of the members of the Harbor Commission. After being graduated from the Institute he was sent by this government to Porto Rico to report on engineering projects there. He was afterwards connected with work on the Los Angeles aqueduct and more recently has been in engineering practice in that city.

R. E. SCHMIDT, '87, a prominent architect of Chicago, has been appointed by Governor Deneen of Illinois as a member of the commission to revise the building laws of that state.

R. WINTHROP PRATT, '98, for the last eight years chief engineer of the Ohio State Board of Health, has resigned from that position to accept an appointment as special sanitary engineer for Cleveland, Ohio, to make an investigation and report relative to the disposal of sewage of that city. Mr. Pratt has been in public health work since he was graduated from the Institute. For part of the time he was sanitary engineer of Cuba, stationed at Havana.

THOMAS M. ROBERTS, '98, has been made professor of electrical engineering at Delaware College, Newark, Del.

F. E. GIESECKE, '04, has been placed in charge of the School of Architecture of the University of Texas. For several years he

has been at the head of the Architectural and Mechanical College of Texas.

C. C. CLARK, '10, who designed the beautiful new art gallery of Thomas Ryan of New York, was the winner of the Roach traveling scholarship last year. Mr. Clark is now with the New York firm of Carrère & Hastings.

HAMMOND V. HAYES, '85, has been selected to act as expert for the English telephone companies in connection with a project involving the purchase of these companies by the British Government. Mr. Hayes was formerly, chief engineer of the American Telephone and Telegraph Company and more recently has been in private practice doing principally consulting work.

CHARLES S. MINOT, '72, James Stillman professor of comparative anatomy at the Harvard Medical School, has been selected by the German Government as exchange professor in Berlin this year.

C.-E. A. WINSLOW, '98, in charge of biology and public health at the University of the City of New York, has been making a complete study of all the health activities of Minneapolis, Minn., as a suggestion for construction work, at the invitation of the Civic and Commerce Association. This work will not be on such a large scale as the Pittsburg survey but the report may lead to a larger consideration of the matter.

W. O. CROSBY, '76, of the Institute, has been retained by the U. S. Reclamation Service to investigate the physical features in connection with the construction of the dam and reservoir on the Sun River irrigation project in Montana. He will examine the alternative reservoir sites and report on the geologic conditions and especially on the probability of the formation being impermeable under a high head of water.

MORRIS KNOWLES, '91, consulting engineer, of Pittsburg, Pa., has been appointed secretary of the newly organized Water Conservation Association of Pennsylvania. The association is made up of those interested in the best utilization of the water resources of the State, including flood prevention, navigation, the development of water power and the supply of water to communities in the State.

NEW MEMBERS OF THE ALUMNI ASSOCIATION

The following former students were elected members of the Alumni Association on the date indicated:

July 23, 1912: Nathaniel W. Appleton, '68; John F. Bacon, '97; John Leonard Bagg, '11; Edw. H. Blashfield, '69; Wm. H. Brainerd, '87; W. J. Brickley, '01; Seneca P. Brown, '03; Freeman Nelson Bull, '04; Edward A. Buss, '76; Henry W. Chambers, '01; George F. Chapman, '82; James E. Chapman, '82; Geo. William Chickering, '92; Maxwell A. Coe, '06; Fred W. Connolly, '01; Edward B. Cook, '01; Edward A. Crane, '89; Leon Edward Crouch, '01; Dr. Wm. Goodwin Curtis, '90; Sidney L. Davis, '06; William B. Douglas, '87; William F. Dyer, '73; William Howard Eddy, '85; Burt L. Fenner, '93; Henry C. Field, '04; Jos. Henry Freedlander, '91; Frederick W. Garber, '03; Charles F. Garlichs, '93; John C. Greenleaf, '99; Edward Hafer, '92; John W. Hall, '92; Alonzo J. Hammond, '91; William C. Hawley, '91; Herbert Leon Jenness, '09; Charles A. Johnson, '09; Abraham L. Lampie, '06; Spencer B. Lane, '11; Clarence Emmett Lasher, '06; Francis M. Learned, '76; Adolph Lomb, '93; Henry A. Magoun, '85; Henry K. Mansfield, '91; Howard Lyford Marsh, '06; Edward B. Martin, '76; Wisner Martin, '90; William Henry Merrill, '89; James Garrison Metcalf, '04; Emmor Hamilton Millard, '03; Frederick H. Muhlenberg, '88; Arthur Rosengarten Nagle, '10; Herman Parker, '89; W. F. Patterson, '87; H. I. Pearl, '11; G. W. Pearson, '89; Andrew G. Pierce, Jr., '85; Edward Payson Quigley, '88; Thomas Christopher Quirk, '10; Clayton S. Robinson, '11; Henry Morse Seaver, '97; Charles Asbury Simpson, '75; H. A. C. Small, '04; Rev. Geo. Benton Smith, '93; David Jerome Spence, '97; J. Gifford Thompson, '91; Clarence A. Tuttle, '91; Cadwallader L. Washburn, '93; Arthur S. Webster, '04; Samuel W. Weis, '92; Robert F. Whitney, '02; William Winter, '03; Ernest Woelfel, '98.

September 18, 1912: Arthur John Amberg, '05; Frederick Huntoon Andrews, '05; Harold W. Beder, '99; A. Shirley Black, '07; John Hardy Bossong, '08; Frank S. Bradley, '03; William H. Bush, '75; Benjamin F. Carter, '07; Lawrence W. Case, '93;

George Allen Clapp, '05; Daniel J. Crowley, Jr., '11; Harold H. Dillon, '03; Harry R. Draper, '07; Augustus C. Foster, '04; William F. Gilman, '09; Jos. Albert Gund, '01; Edgar B. Hammond, '73; A. G. Hawes, Jr., '98; Henry Schumann Heink, '10; Emil T. Henius, '06; Oswald C. Hering, '97; W. H. Hinman, '99; F. G. Jarecki, '91; Bert D. Johnson, '07; Lee Kalbach, '10; Herbert P. Larrabee, '11; Waldron G. Lawrence, '06; Chas. A. Leary, '00; Juan Matamoros, '11; Harry W. Maxson, '01; Norman Nelson, '11; Gilbert M. Nichols, '79; Ellwood B. Paige, '98; Percy H. Physeck, '05; Carl T. Pomeroy, '11; Sterling Howard Pool, '10; John F. Rehn, '07; Edw. Thompson Rice, '09; Robert J. Ross, '06; Dr. Wm. H. Ruddick, '75; Edward Larned Ryerson, Jr., '09; Roger M. Spencer, '11; J. P. Sprague, '00; Roland W. Stebbins, '99; Saml. W. Stillings, '98; Abbot H. Thompson, '08; Ralph W. Tucker, '03; Oswald Ycaza, '93.

October 15, 1912: George Austin Casey, '05; Nathan L. Coleman, '09; Seisuke S. Enouye, '01; John Lyman Faxon, '74; Richard Manning Field, '03; Floyd Frazier, '96; Laurence Usher Fuller, '05; Robert Stevely Hamilton, Jr., '07; Frank C. Hatch, '95; Albert D. Hatfield, '96; Theo. F. Laist, '88; Arthur Safford Martin, '03; David Patterson Marvin, '09; James Albert McKay, '96; Charles S. Miller, '78; Seymour Mansfield Niles, '11; Edwin S. Northup, '96; Munroe Rhodes Pevear, '11; Walter R. Phemister, '95; Frederick H. Pratt, '96; John W. Sargent, '78; Sullivan Amory Sargent, '80; Stuart James Schofield, '09; Henry H. K. Sheridan, '96; Harold W. Stevens, '74; Oliver Stevens, '10; Stuart Thomson, '09; Frederick Lawrence Townley, '00.

MISCELLANEOUS CLIPPINGS

Picturesque East Machias, Me., rubbed its eyes and looked again in astonishment as the Washington County train pulled in from Bangor on Tuesday of this week. The usually light train was a double-header. Two big engines were hitched tandem in front of it. Behind were Pullmans and more Pullmans, beside the usual day, baggage and mail coaches. And then the population of the town was increased by a hundred, most of them well set-up young fellows with grips and suit cases. Great stores of baggage and paraphernalia was put off. The circus with its big tents would not make half so much bustle. It was all very interesting and exciting and East Machias turned out to see it. Tech had come to town; not quite all of it, to be sure, but an interesting and important part of it, its summer school of engineering. Tech was pleased and proud, too, for it was on its way to occupy its splendid new quarters, models of summer school equipment, at Gardner Lake. Buckboards plodded the two miles from the station to the lake shore and back busily all the forenoon, launches chugged across two and a half miles of placid lake, forty white tents rose in military fashion and the beautiful bluff which has slumbered half a century without inhabitants became a town. The next morning, Wednesday, the woods were full of transits, tapes, targets, notebooks and the world's great engineers of the future handling them.

A VACATION OF HARD WORK

The school was thus informally opened and will continue without intermission until September 25 next. The course, which next year will be compulsory, is this year optional, but so great is the enthusiasm of the students that sixty-eight are taking the summer of hard work in the Maine woods. For, if the schedule is rigidly followed, it certainly means hard work. Tides and stream flow will be measured and a railroad laid out, beside hydrographic, geodetic and plain surveying. The young men will breakfast at 7 and at 7.30 will be in the field with instruments. They will lunch there and go at it again until 5.30; this every day in the week with the exception of a Saturday half-holiday for sport, and Sunday for rest and religious exercises. It is expected that some of the great preachers who summer at Bar Harbor will come over and address the boys. Failing this they themselves will be able to conduct Y. M. C. A. services, with which they are familiar.

Tech has been fortunate in great gifts from generous graduates of late. None is finer than the summer school site with its buildings at Gardner Lake. Eight hundred acres there are of spruce and fir wood, ancient pastures and rolling hills bordering for about three miles of bays and promontories on this clear-water lake, which is nine miles long by two to three wide, and contains several islands. The land and camp equipment was the gift of an alumnus who prefers to remain unknown. The other, Charles W. Eaton, '85, gave \$10,000 toward the construction of the buildings. These are located on what is known as Crosby's Point, a bluff fifty feet or more above the lake and extending far into it—a long fir-crowned peninsula. These are splendid examples of Tech architecture, crowning the eminence and becoming a part of its picturesque outlines, belonging among the firs and brown pastures. They face to the south and from their commanding position are to be seen for miles from all directions. Equally they give their fortunate occupants a wonderful view across the great clear lake to the little towns of East Machias and Jacksonville and on to a wide horizon of forest-clad hills. The sea is just a few miles distant and out of it come cool ozonic winds. These, perfumed with balsam of fir, are a tonic unexcelled. Combined with all-day field work, they should provide appetites for young men that will tax the elaborate cuisine of the camp to the utmost.

APPEARANCE OF THE CAMP

The buildings, beside their architectural fitness externally, are quite the latest word in summer camp equipment. The outer walls are of partially rounded timbers, giving a suggestion of log cabin construction, and the roofs are covered with asbestos-cement shingles, proof against fire. The central administration building, the dominant feature of the group, is 72 x 31 feet and two stories high, set well above the ground. To enter, one crosses the broad open piazza ninety feet in length along the front and comes directly into the lounge or living-room, thirty-five feet square with book shelves and seats about the walls, and faces a massive stone chimney with a fireplace big enough to hold four-foot logs. Stone brackets support a heavy oak mantelpiece and above this is room for the Tech seal and emblems. Tech is pleased and the neighborhood proud of this chimney. Bill McKeague of Whitneyville set it up by hand and eye, using only a front plumb-line in placing the gray field stones. In this same building are the offices of the professors and the resident physician and a room which will be a combined post office and country store. Passing through Holden on the way down the boys were pleased with a sign that read "W. F. Chute, dealer in everything." This will be that sort of a store. The upper story of this building con-

tains a gallery overlooking the fireplace, behind which are class rooms and recitation rooms.

Connected by a covered passage way is the entire west wing, 56 x 30 feet in area, one story high, to be used as a drafting-room and containing tables for seventy-two men. To the east, similarly connected, is the east wing, shaped like a square, containing the dining-room, overlooking the lake, with seats for one hundred and sixty-eight persons. So light and airy is this that Tuesday noon that first meal taken there was like dining out of doors. Windows were wide open and the lake, violet-ruffled by the sea breeze and sparkling under the clear sun, shone like a great amethyst among the dark firs. The morning's work in crossing it and getting settled and the tonic air had given such appetites that it is doubtful if Caterer Colton of the Tech Union and his crew had time to realize this, even if the Tech men themselves appreciated the beauty of the outlook. But it is there, and there will come leisurely hours in the next two months when all can enjoy it. Behind this dining-room is the kitchen, equipped with apparatus for solving all engineering problems of scientific cooking. And behind this is the icehouse, where both raw material and finished product may be put in cold storage. With commendable forethought the icehouse was the first building erected on the grounds and last winter it was stored with eighty-five tons of Lake Gardner ice. Thus backed, it is believed that the catering force can keep cool under the fiercest gastronomic onslaught of hunger-maddened surveyors.

The students are to sleep in tents which stand in two long rows, twenty to the row, one line along the bluff near the water, the other topping the ridge a hundred feet back. The tents are 10 x 12, each with a fly, a board floor and opening at each end. Each contains two cot beds and a little table and will be occupied by two students. Their brand-new whiteness gives the place the aspect of Spotless Town and they shine forth vividly from a distance of many miles.

The water supply for the camp is obtained from driven wells of tested purity near by, pumped to a great concrete-roofed concrete tank which is high enough to give fire service in case of need. The sewage disposal system is of the most modern type known, being that known as the Imhof system, now in use at Essen, Germany, and its trial here will give the engineering force an opportunity for observation and experimental work. An elaborate series of concrete tanks for sedimentation is built which will be flushed annually to gravel filter beds.

LIGHT THAT COMES IN BOTTLES

The lighting of the buildings, too, is by one of the latest of scientific devices, the use of Blaugas. This is a coal-tar product manufactured in

Germany and shipped, compressed into liquid form, in steel bottles. The gas released from these is piped to Welsbach burners enclosed in ground-glass globes, giving a powerful but soft and well-diffused light. Opening a bottle—of light—is thus hailed by undergraduates as a promising evening diversion after a long, perhaps cold and wet day in the field.

Such are the buildings and the location of this, the most complete engineering summer school in the country. It is unique in the completeness of its buildings and in the numbers of its teaching staff, there being one teacher to every five students, a much greater proportion than is found in any other school of this sort. Prof. Alfred E. Burton, Dean of the Institute, is in charge of the discipline and personal relations of the students. Prof. C. Frank Allen, of the railroad engineering course, attends to administration and financial matters. Arthur G. Robbins, professor of topographical surveying, George E. Russell, assistant professor of hydraulic engineering, and assistant Professor Hosmer of topographical surveying, together with six instructors, complete the staff.

WHAT THEY TEACH

In this most complete of summer schools, Tech is preserving its high standard of instruction, and that the opportunities of the place are appreciated is shown by the large number of students that are taking the course, though it is optional this year. In the future it is to be a regular part of the course in civil engineering and will be compulsory. The surroundings are such that little opportunity for the dissipations of city or summer resort life presents itself. Across the lake some miles south is the picturesque metropolis of East Machias, with a total population of 1,300, well scattered in the main on prosperous little farms. Four miles farther away is Machias, with nearly twice as many people. Except these, north, west and east lie unbroken miles of wilderness with moose, deer, bear and bobcat in plenty, but practically no human population. But aside from the joy of running levels and laying out imaginary railroads, the region offers unlimited opportunity for the enjoyment of life in the open. The lake in which the boys will take their morning plunge is stocked with pickerel and perch, and into it flow numerous streams that teem with brook trout. Just west of Lake Gardner is Hadley Lake. Many a Tech man will remember Hadley. Well, this is his lake. It is half the size of Gardner, but it is full of land-locked salmon and square-tailed trout. By canoe one may go up the East Machias River, into which both Hadley and Gardner lakes empty, forty miles farther, finding fish innumerable and the wildest of woods all the day.

But the Tech man, weary of transit and logarithms, does not need to go

into the depths of the wilds to find rest and refreshment. He may sit at his tent door and pick the sweet blueberries that seem to loiter diffidently up to it on their dwarf bushes. Countless bushels of these grow in the open pastures and on the forest edges of the Tech land. And all lowlands are crimson now with raspberries, the vines set in thickets and loaded with berries as fine in size and juiciness as those of any garden, and having a wild flavor of their own. Eating of blueberries from the bush is pretty gentle dissipation, to be sure, but about half the students were out doing it that first Tuesday afternoon of their arrival before the clasp of study hours had been set upon them. Indeed, it is suggested that when that railroad is laid out it will be found to lead by air line routes from each best blueberry patch to the next.

SOME OF THE NEIGHBORS

As for bobcats, bears and other wild creatures of the big woods, if the Tech man does not believe in them he has but to take a little trip south across the lake to the log cabin of Francis Dana, Passamaquoddy Indian. Hearing the tales Francis tells about his encounters with bobcats in the woods above Gardner Lake one realizes that only the most robust Tech men, heavily armed, should be allowed out after dark. But the students will have little time to worry about wild game. The whole region is to be surveyed into inch pieces, mapped and generally dissected, and the boys have to do it all.

The students have to pay each his proportionate share of the cost of living, but there is no charge for instruction and the young engineers consider themselves fortunate in being able thus to do their field work in midsummer in so beautiful and exhilarating a region instead, as has been the case in past times, along Boylston Street and out through Brookline and the Newtons on the slippery days of November or of March. One has but to see this region to perceive its wonderful adaptation to the needs of a summer school of this sort and to realize that in it Tech has one of the finest of its many great gifts from the alumni.—WINTHROP PACKARD, '85, in *Boston Transcript*.

The Massachusetts Institute of Technology is the first institution for the higher education to recognize the place which aviation has gained among the practical arts. A course in aeronautics has been added to the curriculum for the coming year in connection with its department of mechanical engineering.

This is an important and significant step in the development of aerial flight. Hitherto it has held the place of a spectacle for the multitude or a sport for the venturesome individual. There have been attempts

to give it practical application, adapting the aeroplane to supposed uses in warfare, in which all the great powers are engaged, or to the carriage of passengers and freight, as in Count Zeppelin's great dirigibles. But as yet the element of danger dominates its commercial advantages.

Before the art of man-flight can be brought practically to serve the business of transportation, it must be developed along scientific lines towards conditions of assured safety. To this end, specialized training in our technical schools is most desirable. The skill of the naval architect, the mechanical engineer, the physicist, the meteorologist, their experience and knowledge, are all needed in the equipment of the aviator.—*Boston Post*.

During the fifteen years Mr. James Knox Taylor was supervising architect of the Treasury the government kept his office unusually busy.

The Government and the Profession Larger appropriations, more buildings and the general advance of architectural standards throughout the country combined to give him opportunities such as none of his predecessors ever enjoyed, and therefore, as he leaves office, it is pleasant to record he took full advantage of them. Indeed, his long and useful administration will be remembered as the one in which government architecture ceased to be synonymous with ugliness. It was the administration first to establish a real and comprehensive *entente cordiale*—a genuine feeling of sympathy and co-operation—between those in private practice and those in charge of the designing and erection of federal buildings in the Treasury Department. The Tarsney Act, to be sure, contributed to this highly desirable state of affairs, though a mere "bureaucrat" might easily have made its operation less successful by standing jealously in the way of authorized progress. Happily, Mr. Taylor was the friend of the American Institute of Architects, and on many occasions co-operated with its officers most loyally.

Lastly, and by no means least, he was the first to make a high standard of design possible in the office of the supervising architect itself. It was he who secured designers like Pratt, Crane, Wyeth, Pietsch, Totten, Watmough and Laist; and because he surrounded himself with such able men it can now honestly be said that there are many towns and cities possessing federal buildings which locally represent the acme of architectural excellence. The skeptic will say, only because in some of these remote communities architecture is still an unknown luxury. Admitting this, the fact remains that the presence and example of a good (even though a stock) design in such places is already having its effect, and it is not, therefore, too much to suppose that these nest-eggs are already unconsciously fulfilling a much-needed educational work in addition to

the function they were primarily designed to perform. On the other hand, it is but fair to say that in quite a number of our larger cities, where private architecture thrives and is sometimes appreciated, there are government buildings distinctly superior in both construction and design to any of their neighbors. All this has helped the private architect indirectly, but directly he has been substantially benefited by being entrusted with government work both under the provisions of the Tarsney Act and by special legislation. It is much to recall, also, that under Mr. Taylor's administration many well-conducted competitions have been held, and many big awards have been made, without suspicion of favoritism. Thus the government has been reinforced by outside talent and the profession has been benefited by more than one monumental commission of a kind not often entrusted to its members before his time.

Mr. Taylor's many friends and well-wishers will be glad to learn he has consented to become the head of the department of architecture at the Massachusetts Institute of Technology, where his influence is bound to be strongly felt.—*The National Architect*.

In the exhibition of the Congress on Hygiene and Demography in Washington, the Massachusetts Institute of Technology stood as the school par excellence in matters of education relating to health. It is the work of a single department that was thus brought out. The exhibition was of interest as noting the chief points of contact between the Institute and the people.

Conserving Public Health Under Prof. William T. Sedgwick the Massachusetts Tech has made for itself a place in the story of public health that is little short of wonderful. The department has never been a large one, but it can show today nearly 150 of its former students that are in life's work as physicians, as teachers of biology and sanitation in other institutions, or as public health officers. This distribution was shown by one of the items in the exhibit, a map of the country with dots to represent the men. In Massachusetts, New York and New Jersey they are so thick that it has been necessary to place the dots out in the Atlantic Ocean for want of room on land.

The milk work of the department was illustrated by photographs of "counts" of bacteria, the samples being from the milk supply of Boston, one of them having only 600 bacteria per cubic centimeter and the poor sample having 1,400,000 bacteria. The Boston limit is half a million.

One of the most taking of the groups of photographs was a little selection of four, showing various phases of Prof. W. Lyman Underwood's work. One of these represents a pool, in which one can plainly see the young mosquitoes. The pool is coated on the surface with oil and the wrigglers that have surged up against it but are unable to pass through,

are one of the most taking of object lessons in mosquito destruction. Another photograph shows goldfish in the act of eating mosquitoes, and Underwood has some interesting statistics as to the voracity of the carp. The original picture of the classic fly track, the one that all the magazines have copied and all the swatters sworn by, a Tech production, is one of the exhibits. The bacteria of corn is the fourth of a set.

Most important as one of the elements of the department is the Experimental Sewage Filtration Laboratory, first established on Albany Street, but now at the Calf Pasture. No other educational institution possesses such a plant. Here the workings of various kinds of filters and other devices for purifying water are tried out. It is natural, therefore, that this station should be shown and it was represented by two drawings and a photograph of heroic size.

Another conspicuous wall exhibit was one of the charts of the investigation by Professor Sedgwick and F. Schneider, Jr., on the relation between gas manufacture and life, it being evident that deaths and suicides keep pace with the manufacture. There were several other charts illustrating details of the investigation, which are in a convenient wall case, forming part of the exhibit. Other items shown were the classrooms. A number of the investigations were shown in others of the 30 charts in the case.—*Boston Herald*.

A prominent engineer in Mexico has just telegraphed the mining department, asking that a mechanical engineering draughtsman be procured for him. He offers a starting salary of between
Draughtsman one hundred and thirty-five and one hundred and
Wanted forty-five dollars per month, and also offers to pay all
the traveling expenses incurred. The engineer does not
require a graduate, but states that any man, graduate or undergraduate,
who is fairly proficient in this line of work is eligible for the position.

The importance of this request lies in the fact that the engineer is willing to take his chances on any man that is a Tech man, and is willing to pay well for the work. In doing this he is paying Technology the same compliment that Edison has so often done in his praise of graduates of the Institute and in his selection of Tech men for his most responsible positions.—*The Tech*.

BOOK REVIEWS

SEWAGE DISPOSAL. By George W. Fuller, '90. New York, McGraw-Hill Book Co. 1912. Pp. 767.

This book is, according to the author's preface, a résumé of the progress that has been made in this country during the last quarter century by one who has been intimately associated with the work. No one could be better qualified to write such a book than Mr. Fuller and no better book on the subject has been written. Its nearly eight hundred pages make a very formidable document, but the dismay of the reader will vanish when he discovers that the material is excellently arranged, clearly printed and paragraphed, and well indexed. Brevity has been sacrificed to clearness, and repetition has been employed for the sake of emphasis. The principal reason for the size of the book, however, is that the author has, as he says, drawn fully from the writings of others and from the professional papers and reports of the firm of which he was so long a member. Some might have wished these quotations to have been abstracted and condensed, but most engineers will very much appreciate having so many important works set forth in such a convenient form for reference. While the author has quoted largely he has not failed to express his own ideas on most questions at issue. On matters of doubt he has set forth the arguments and opinions of experts on both sides.

Perhaps the most commendable feature of Mr. Fuller's book is his point of view. It is not a mere description of methods used for attempting to purify sewage, it is far broader than that. This is shown by the fact that fully half of the book is devoted to the composition of sewage, its decomposition, sewage bacteria and the disposal of sewage without treatment into inland streams, lakes and tidal estuaries. It is again shown by the use of the term "sewage treatment" in place of the misused and very misleading term "sewage purification." This change the reviewer heartily approves and believes that it alone will do much to place the matter of sewage disposal in the right light for those who are interested in the subject from a sanitary standpoint only. The sooner that the medical fraternity and the health officers realize the limitations in the sanitary efficiencies of some of the processes of treatment employed, the more rapid will be the rational development of the art. The point of view of the author is expressed by the opening words of the sixth chapter, where he says, "the disposal of sewage by treatment in works of artificial construction becomes necessary in some cases through the failure of the dilution method to meet local requirements." And again in the last chapter, where he says: "One of the most conspicuous facts to be borne in mind is that there is no standard method of procedure for the treatment of sewage which can be uniformly applied to a large number of problems with a view to securing satisfactory hygienic results at least cost. Various partial methods, arrangements or devices are suitable in some combination or another for a large number of problems. But there is no cure-all or appliance which can be installed for all problems. Each set of local conditions should be carefully studied, in order to secure proper hygienic efficiency with due

regard for economy of construction and operation, before new works are adopted, or extensions made to existing works."

Another good feature of the work is its historical point of view. The reader can not fail to be impressed with the fact that the art of sewage treatment has been a gradual evolution of methods to particular conditions and that there are yet many problems to be solved. Nor can he fail to observe how the advances in scientific thought in the realm of bacteriology and physical chemistry are profoundly affecting actual practice. An entire chapter is devoted to the development of experiment stations and a table is given showing that during the last twenty-five years nearly \$900,000 has been spent in this country for experimental studies relating to the purification of water and sewage. Especial tribute is paid to the pioneer researches of the Massachusetts State Board of Health Experiment Station at Lawrence. The historical aspect of the book is well shown in the treatment of the problem of sewage disposal in the harbors of Boston and New York.

It is probable that the first half of the book, in which the more general aspect of the disposal of sewage by dilution is considered will be more appreciated by engineers than the second half, devoted to methods of treatment, for the reason that data regarding the former subject have never before been so thoroughly compiled. The layman, however, will derive benefit from the systematic descriptions of processes in the second half of the book.

To describe the book more specifically, there are twenty-six chapters, devoted to the following subjects: Composition of Sewage; Aerobic and Anaerobic Decomposition of Sewage; Sewage Bacteria as Related to Offensive Odors; Sewage Bacteria as Related to Public Water Supplies; Sewage as Related to Shellfish; the Problem of Sewage Disposal; Experimental Methods as Applied to Sewage Disposal Problems; Dilution in Inland Streams; Dilution in Large Lakes; Dilution in Oceans and Tidal Estuaries; Sewage Treatment Works; Screening; Plain Sedimentation; Septicization in Connection with Sedimentation; Chemical Precipitation in Conjunction with Sedimentation; Electrolytic Treatment; Strainers, Slate Beds and Colloids; Broad Irrigation; Intermittent Sand Filtration; Contract Filters; Sprinkling Filters; Aeration; Hypochlorite Treatment; Ozonization; Institutional and Residential Plants; Comparative Summary.

It will be noticed that some of the newer processes, such as ozonization, the use of electrolytically prepared hypochlorite, etc., are also gone into, but with reservations as to their probable utility. In the description of processes, emphasis has been placed on the underlying principles and on the efficiencies obtained by their application, while structures have been described only to a limited extent and the illustrations are relatively meager. The subject of cost is also one that has not been elaborated.—GEORGE C. WHIPPLE in *Science*.

CONCERNING SALLY. By William John Hopkins, '85, Boston, Mass. Houghton, Mifflin Co.

Mr. Hopkins of Wellesley Hills, it will be remembered, is the author of "The Indian Book," "The Meddling of Eve," "Old Harbor" and "The Clammer."

In "Concerning Sally," Mr. Hopkins has drawn a pleasant picture of a strong-willed, affectionate and lovable girl who all too early in life has to face some very perplexing problems. Her father is a college professor who can be delightfully

entertaining upon occasion, but who usually expends his wit in sarcasms at the expense of his family. He gambles—secretly at first, and at last so openly that the college authorities ask for his resignation. From that moment he disappears, only to reappear a long while later, giving Sally a bad half-hour, but dropping out of sight once more—this time for good and all.

Besides the anxiety occasioned by her father's failings, Sally has the additional burden to worry concerning her mother's health. Mrs. Ladue is forced at last to enter a sanatorium, and Sally with brother Charlie is semi-adopted by her father's uncle. In the new town to which she moves Sally finds many interesting friends—people who interest the reader as well as they interest Sally. She grows out of school girlhood into school teacherhood, harassed by Charlie's gambling tendencies, cheered by her mother's return to health, and followed always by the counsel and affection of Fox Sanderson. It is Fox Sanderson—now Dr. Sanderson—whom she is about to marry when the story ends.

Although the story moves along pretty quietly, it is at once so human and so unusual that it excites deep interest. Oddly enough, the book is far less entertaining for the first chapter or two than it proves to be further on. But even from the first glimpse of her, Sally is a real person, a person whose woes and joys the reader cannot choose but share.—*Boston Herald*.

NEW DEMANDS IN EDUCATION. By James Phinney Munroe, '82. Doubleday, Page & Co., Garden City, New York, 1912. Pp. 308.

Realizing that the public schools are sending out into the world the great majority of our children with scarcely any training which enables them to enter upon lines of productive work, and that our boys and girls start their life work with little or almost no education, Mr. Munroe has produced a book which should awaken the indifferent public to this existing condition, his views being presented in so pleasing and convincing a manner as to make the whole volume, not only instructive, but interesting and inspiring to those who are not directly concerned with the questions of education.

He has prefaced his volume with the statement,—“The boys and girls in school are the greatest of all national resources, . . . and the province of education is to conserve these most valuable assets.” In the twenty chapters which follow, he makes strong appeal for a readjustment of our educational schemes to meet the new demands. Although he has not confined his discussion to any one phase of the question, his criticism is focused on the high school. He states that the course of study, the teaching, and the whole atmosphere are determined, not by the real requirements of the hundreds of pupils, not by the need of the community, but almost solely by the special demands of a handful of pupils who are to meet some day entrance examinations to some college. Meanwhile, he states, the manufacturers are spending hundreds of thousands of dollars to give the youth in their employ that fundamental training in which they should have been thoroughly grounded; and the economic future of the community is threatened because the workmen are mentally and manually untrained. “For this colossal failure the school receives little or no blame.” “Custom expects a high school to meet the unreal demands of the college, but does not expect it to prepare for the real and pressing requirements of daily life.” With these facts in mind, Mr. Munroe takes up the grievance of the average boy against the average school,—

a type of boy representing two-thirds or three-fourths of the seventeen or eighteen millions enrolled in the public schools. Mr. Munroe writes,—“The state . . . seizes the average boy when he is five or six and holds him until he is fourteen or, in some instances, sixteen. It preëmpts him, therefore, during his most formative years, and declares that it alone shall determine how he is to be prepared for life. Since the state thus exercises a giant’s strength, it is morally bound . . . to give every boy and girl . . . just the kind and amount of education which that particular child ought to have.” “Does the city or town commonly do this?” he asks. “Far from it.” “On the contrary,” he says, “it puts the average child through a routine of instruction which has little if any relation to his real needs, and which . . . leaves him at fourteen just as helpless and almost as ignorant of the essential things of life as when the school took hold of him at five.” Because the average school does not prepare the child to make the most of his subsequent life as a worker, as a citizen, and as a man, we are not only squandering our chief industrial and civic resources, Mr. Munroe maintains, but we are stunting and wasting innumerable human lives. The school expenditure, he points out, is in the hands of boards whose members know little or nothing concerning the stupendous enterprise over which they have autocratic control. Also this expenditure, is so unsafeguarded as to be at the mercy of unscrupulous men or corrupt politicians. Nevertheless, he believes education should not be left in private hands.

Mr. Munroe has written his book, as the publishers have stated, with a frank acceptance of that cardinal principle that criticism, to be helpful, must be constructive and optimistic. He is not a fault-finder, but a far-seeing critic, who appreciates the need of reconstruction in our educational methods and who would build intelligently upon the good that we have. We owe a great debt to the author for this volume; for, he has struck the keynote of that most important question, a question vital to us as a people and as a nation,—the right kind of education for our youth. “There is not a community, not an industry, scarcely a family, which is not suffering grievously for want of what education alone can give.”

His plea for the average boy has been made so forcible that it should be read by all parents and taxpayers. “What the community wants in that boy at the end of his nine years of schooling is efficiency: ability to do whatever he can do and does do thoroughly, intelligently, enthusiastically, and well.” What every school child should have, therefore, Mr. Munroe states, is mind training and book learning, but he should have also, body training, sense training, manual training, and industrial training. These points are treated at length in separate chapters, and indeed it is a great relief to read from his pen a sound and bold discussion of the whole matter, far from the hackneyed and stereotyped form usually met. He advances the position that the average boy has a serious grievance against society which forces mechanical teaching upon the schools, an added grievance against the colleges which largely determine what those children shall study, and a further grievance against the industries which stupidly acquiesce in a system that fits only the petty salesman and the clerk. “These grievances, moreover,” he states, “are shared by every citizen, for, sooner or later, all of us must pay the costs of this colossal and needless waste of human energy.” He not only criticises, but he suggests reforms, and he makes a long list of recommendations which, he states, were they heeded, “the mental and industrial efficiency of every average boy and girl would be markedly increased, the percentage of life-failures would be

immensely decreased, and the proportion of those who really accomplish something toward the advancing of civilization would grow by leaps and bounds." "We would then conserve," he declares, "what we now so scandalously waste: the most valuable of earthly assets, human energy."

In the chapter on "The Common School" he maintains that we hold by our free schools because public education gives every child that fair chance which many parents cannot provide, and because it makes the Republic safer. We require all children of certain ages to attend school, and we tax ourselves to pay for this free teaching. Mr. Munroe points out that there are at least two other obligations to the child. "The first of these . . . is to make sure that his schooling is the best obtainable; the second . . . is to make certain that we secure the equivalent of this money in the quality of citizenship which schools produce." "It still remains extraordinary," he observes, "that a nation so shrewd as ours, lavishing millions upon our free education, should not look more closely to it that industrial capacity, mental and physical strength, and effective citizenship result." Mr. Munroe maintains that the only way in which to give every child an equal chance with every other is to provide for each the atmosphere and incentives suited to his particular needs and nature. No startling changes, he states, are necessary in the free school system. We must, however, he declares, do away with the curse of uniformity, allowing, instead, full play to individuality.

The chapter on "Education as Prevention" advances the truth that education should be superlatively a growth in morals; yet, largely through our sectarian ranklings, he states, we have reduced it to the lowest terms of unmorality. The watchword of moral education, he declares, should be *prevention*,—the prevention of disease, prevention of crime, prevention of poverty, prevention of insanity, feeble-mindedness, blindness, and all the rest of those preventable scourges. He outlines three lines of activity fundamental to all physical, mental, and spiritual advances; and he makes a strong plea for the "to get together" as the first step in the process of genuine and permanent reform.

In another chapter he makes demand for Efficient Administration. He states that a school board constituted as are those in most of the cities of the United States is a monstrous outgrowth of the old town school committee, as ill-suited to the conditions of modern city life as the town pump and the beadle. "The external management of the public schools is a business problem; . . . only, since its raw material is boys and girls, the right running of it is vastly more important than is the conduct of any of the other things." He declares, also, that it is better men and women that are needed in school boards, not better machinery. "A school board . . . should be chosen largely for its administrative fitness, entirely without regard to its political affiliations." "Then," he claims, "the education of the people would be carried on in the interest of the people, . . . and the administration of public education in America would be something for which Americans would not be obliged to apologize." Regarding the truancy system, he points out that it is now a part of the police machine. What an immense force for good it would be, he suggests, were it put into the hands of the superintendent and made a part of education. As it is now, he sights, the main result of the truancy laws is to punish the child, instead of to reform him.

In the chapter on the "Demand of a True Profession of Teaching" Mr. Munroe declares "there is no greater waste in the working of the present public school

system than of the intellectual force and enthusiasm of the good teachers. Whatever their professional training, whatever their zeal, they must still teach in practically stereotyped ways. What a frightful waste of energy this is, and how opposed to all true principles of teaching. The blame for the condition that the teacher is not honored above other men belongs, he maintains, mainly to the parent to whom any of his affairs is of more importance than the building of his children's characters. There is no reason, he states, why the man or woman who has charge of the mental growth of the child should be satisfied with a training less thorough than that of the physician who cares for his body. In this chapter he draws close analogy of training for teaching with that for the medical profession, and he furnishes abundant foundation for a science and art of education as elaborate and dignified as that of medicine.

In his demand for "Vocational Training" he claims that through this false notion of keeping daily education remote from daily living we are making the schooling of children a secondary incident in their formative years. "We are losing by the wayside a large proportion of pupils who would greatly profit by the right kind of education; we are graduating from our educational institutions . . . tens of thousands quite unfitted to grapple with the conditions of industrial, civic and family life; and we are spending enormous sums in directions where they are bringing in no commensurate return in good citizenship and effective workmanship." A fundamental defect in public education, he states, is that it tries to deal with masses of children instead of with the individual child. From this follow those mechanical methods of schooling which stunt or pervert every child who does not happen to fit into the pedagogical machine. To secure individual instruction, he insists, it is essential to reduce the number of pupils to each teacher. It is not until the high school age, he claims, that definite vocational training can properly begin; and it is in the high-school period that the greatest waste of fine human material now takes place. The high schools, as a rule, he maintains, have thus far wronged the public. "Ignoring the fact that to nine out of ten pupils the high school is the last stage of formal training, its courses have been planned, not to round out their education, but to leave it unfinished, unintelligible, and in large measure barren to those graduates who do not go to college." The first step for public secondary education to take, he claims, is to assert and to secure absolute independence of the colleges in matters of curriculum. The elective principle in secondary education, rightly developed, and wisely extended, he believes, will do much to hasten the coming of that ideal time when the man and his vocation will be in close harmony.

In the chapter on the "Pressing Need for Industrial Education" he points out that we need never fear a dearth of institutions in which every youth who wants to do so may secure an education for leadership in the industrial army. "But," he asks, "what of the rank and file?" To secure and maintain industrial power, we need higher skilled and better disciplined privates. He writes,—“We have been so fearful lest we should not give every boy and girl an equal chance that we have ended by cheating a great proportion of them out of any chance whatever. We have been so afraid of establishing a caste system that we have developed the most wretched caste of all, a caste of men and women with no definite trade or occupation and with no chance to acquire one.” The first thing to be done, he says, is frankly to acknowledge that an overwhelming majority of public school

children are obliged to leave school at fourteen, and to enter for the rest of their lives, some industrial occupation. "That being so," he rightly maintains, "it is the duty of the community to fit them for that inevitable vocation, just as the college and school of technology fit for the higher vocations, not by teaching the knacks and tricks of any special trade, but by training those senses, aptitudes and general powers which lie at the foundation of industrial efficiency." He declares that the most pressing business of education is to educate away diverse and deep-seated prejudices; to persuade the public that to develop a good citizen, one must first make a good earner, and that no man is industrially efficient whose training for making a living has been left wholly to chance. We should agree with him that the effect of such technical schools, as he advocates, upon the general welfare of the community, the direct effect in increasing industrial efficiency and prosperity, and the indirect influence in diminishing the number of incompetents, unfortunates, and other social wrecks and burdens, will be, unquestionably so great as literally to re-form our industrial and social structure.

The chapter on the "Demands of Business" discusses college training as a preparation. Here he states that the only really successful man is he who possesses culture. He points out that college men going into business must acquire a good working knowledge of the principles of mercantile exchange, must be both able and willing to do a lot of hard work, should have good judgment, quickness of apprehension, fertility of resource and "gumption," and they must know how to deal with men. This problem of human intercourse, he writes, divides itself roughly into four main groups: into the men above one, the men below one, the men on a level with one, and that most important man, one's self. He gives pages to the youth's dealings with each of these persons, and his valuable advice should reach every young man who is ambitious to become master of his own career and to achieve real enduring success.

The man who claims that the world owes him a living will sing quite a different song upon reading Mr. Munroe's chapter on the "Need of Real Patriotism." The debt one owes to the state is so forcibly portrayed that one will feel, if his life is to amount to anything it must be devoted to the repayment of this great obligation. How our free schools may be made to promote and stimulate active patriotism, and what true patriotism really is, is clearly pictured. In fact, the chapter is an essay of more than usual merit.

Another of Mr. Munroe's demands is for Trained Citizens. The free public school could not for a moment justify itself, he declares, excepting as a training-ground for citizenship; and the kind of citizenship constructed, means the life or ultimate death of the community. He states that to teach civics is easy, to inspire patriotism is not difficult, but preparation for economic and social citizenship, however, is a far more serious task. The important thing, he brings out, is to have one's vision fixed, not on what one is teaching, but on what one is teaching *for*; and the vision of the ideal citizen no teacher must, for a moment, lose. "The public is more ready to demand and to encourage fine buildings than fine teachers. The lofty schoolhouses make a civic show; the high-aiming teachers do not." Mr. Munroe follows up this argument with the discussion that "we spare no pains to train the blind, the deaf, and the dumb; yet we send out from our schools . . . tens of thousands, who, having eyes, see not; having ears, hear not, having tongues, are powerless to speak to their fellowmen except in a mean-

ingless tittle-tattle." To reduce the number of these mental and moral defectives, he maintains, is one of the most important functions of the school. "Today, we are, tomorrow they will be, the citizens; and whether or not they are to be true and efficient citizens rests entirely with us. It is our business to see to it, therefore, that the atmosphere and the educational influences . . . are the very best, the very most efficient, the very most uplifting to boys and girls that it is possible for them to be."

Almost every argument for the so-called modern education rebels against the old text "spare the rod and spoil the child," and not a few persons are fearful lest the revolt against the rod of discipline may be carried so far as to spoil the child by equal errors and follies. Mr. Munroe states in his "Demand for Discipline" that physical, mental, and moral fibre, for what education exists to develop, in the child, can be built up only by daily application of—not the actual birch—but, the rod of hard work and steady discipline. "Many of the new methods . . . of gentle cooing toward the child's inclinations, of timidly placing a chair for him before a disordered banquet of heterogeneous studies, may produce lady-like persons, but they will not produce men. And when these modern methods go so far as to compel the teacher to divide this intellectual cake and pudding into convenient morsels and to spoon-feed them to the child, partly in obedience to his school-boy cravings, partly in conformity to a pedagogical diet-list dictated by the latest out-givings of physiological psychology, then the result is sure to be mental and moral dyspepsia in a race of milk-sops." "Under the old régime, the school-master was a slave driver; but in the change from driving to coaxing a new slave-driver is being created,—the pampered child." Mr. Munroe appreciates that ten times as much can be done with a pupil through sympathy as through compulsion; and he understands that interest plays an incalculable part in education; but the new education, he claims, in its joy at these discoveries, runs to the opposite extreme. "Hence many a youth today, expensively educated in an extreme of newness, has no tenacity of memory, no vigor of mind, no power of concentration, no ability to do real work."

In his "Demand for a Citizens' High School" Mr. Munroe states that in the usual conception of the high school it is one of two things. "It is the upper part of the ladder . . . by which the poorest as well as the richest may go straight from the cradle to the university, or it is itself the 'people's college.' Under the first conception the free high school tends to become mainly a fitting school . . . under the second it degenerates into a cheap edition, in paper covers and with popular illustrations, of that *édition de luxe*, the university. In the second it is sure to present courses whose range is exceeded only by their shallowness." Both of these conceptions of what the secondary school should be, he claims, are wrong. Any high school which acts upon them, he maintains, is misusing the people's money. "The only justification for a common high school supported by the citizens is that it should develop a better citizenship. Let it keep steadily before itself this aim toward citizenship, and the high school becomes a tremendous social force, justifying almost unlimited expenditures. It will then . . . be a question in the high school, not what the pupil learns, but what he becomes; not how he passes his examinations, but how he strengthens his character. To utilize . . . these forces, to form character, to create out of the raw material of adolescence the fine flower of manhood and womanhood, demands a remodelling

of the high school within and an awakening of the citizen without." He takes up three aspects of the case:—"what the high school should demand of the lower school, from its own pupils, and from the citizens; and, in return, what influences for good it should exert upon those lower schools, upon those pupils of its own, and upon the community in which it is established." His treatment of each case is strikingly strong.

Mr. Munroe believes that "the Colleges Ruin the High School," and he opens his chapter under that heading with the statement "It seems superfluous to argue that the average high school is, in large degree, a failure. It is a lamentable fact to be acknowledged and faced." He admits that within their limits these schools are producing better and more lasting results than ever before. What he criticises is those limits themselves; and in doing that he finds fault, not with the high-school masters, but with the public and with the universities. The high school fails, he declares, because having been created to give intellectual, moral and industrial sustenance to the people, it has been commandeered to feed the colleges. "This . . . is being done in face of the fact that only about ten per cent. of a community's children graduate from the high school, and that only two or three per cent. ever go to the colleges which thus overshadow the whole public-school system. But from this obsession schools and teachers cannot escape so long as the public finds its satisfaction . . . in boasting, not how much its high school is doing for the ninety-seven children to whom that is the end and crown of their school work; but how well it fits three pupils for Harvard, Yale, or Smith." This chapter speaks so many truths which one dreads to hear, its sentiments should reach every family and every taxpayer. Then, many of us believe with Mr. Munroe will there be an awakening which will demand a readjustment of our public-school system; then will the schools begin to prepare a boy to go out at eighteen intellectually, physically, and morally ready to make the most of himself in the social and industrial world.

Mr. Munroe has "not overlooked the plain fact that the main energies of society, so far as they relate to the high school boy, should be concentrated . . . on carrying him safely through the most serious and far-reaching evolution of his entire life." In his chapter, "The Donning of Long Trousers," viewed as a symbol of physiological and moral change, he has given us one of the strongest articles on this most significant event in life. He gives seven characteristics which all normal, healthy boys present during the period between thirteen and twenty. The discussion which he makes of these common and basic characteristics should be read by all parents. He also considers the boy's environment—society in general; and he believes that "not much good education for the boy can be expected from the community at large." "Of the uplift of the atmosphere of a good home one cannot say too much in eulogy; but . . . in how many, even of the good homes," he asks, "are the peculiar wants of the growing lad in any degree met?" This part of the problem, the writer has not neglected. In fact, the whole chapter is an unusually strong writing; and much lasting good to our future citizens should come out of it.

In his chapter on "The Mechanic Arts" he traces the birth of trades, the growth of professions, and the development of machinery, from the time of Adam and Eve. He states that if the boy is brought up in the country he gets his training for agriculture as he goes along; if he seeks a profession he finds the colleges and

schools of technology all ready to prepare him; if he thinks of going into business he will discover that his public school has given him a fairly good training. "If, however, a boy wants to follow a trade or to take up manufacturing, he will find it difficult . . . to get in at all, and, after he gets in, all the education he acquires must be picked up . . . haphazard and by observation,—a most wasteful and discouraging way in which to learn. This is doubly unfortunate, for it overloads commerce with boys who might do better work in a trade, and it deprives the crafts of young men who would honor them and of whom those crafts are in direst need." He extends the discussion to a chapter on "The Educational Bearings of Manual Training." He here claims that manual training, when properly understood and rightly carried on, bears directly and deeply upon coördination, creativeness, culture, and character; and upon these educational foundations, manual training can stand "four-square to all the winds of heaven." He shows many directions in which the creative instinct stimulated by manual training, serves, as no other educational process can, in the development of many a boy and girl. The four chief bearings of manual training upon education,—the promotion of coördination, the development of creativeness, the broadening of culture, the strengthening of character,—have been fully treated; and in addition to pointing out some of the defects of the Russian system in a separate chapter he makes it clear that "during all these centuries . . . education has been acting as though it could stand apart from life and livelihood, has been holding itself aloof from the boy's and girl's real interests, has been covertly sneering at manual labor, has been filling . . . tens of thousands of honest youth with a vague notion that the educated man can be a sort of lily of the field which, having arrayed itself in Greek and Latin, need neither toil nor spin." Manual training, he maintains, if it will, can carry on a crusade of the noblest kind.

He makes strong "Demand for Breadth." In this chapter he states that specialism is the order of the day, "from the professor of Greek down to the 'professor' who shines one's shoes." "But," he asks, "what can be expected of the rank and file of the modern world when the leaders of American life have seemingly gone mad upon the question of specialization." He acknowledges the time has long gone by when any man can "take all learning for his province"; but he maintains that that does not justify the running to an opposite extreme. Mr. Munroe states that the young man's success in life depends enormously upon his ability to get on with and to handle men. "He cannot have that success unless he is broad . . . tolerant, tactful, and philosophical; and he cannot be those things unless he has been trained, not as a specialist, but as a man. Every American must acknowledge that we do not produce our due proportion of great men. There are, of course, many excuses which may properly be offered but one of the fundamental reasons," according to Mr. Munroe, "is that we permit our promising youth to specialize too soon." Mr. Munroe therefore, maintains that "a youth ought not to specialize until he shall have had a number of years of wide experience in his work, until . . . he shall have taken a thorough graduate course in the university of the world. Then he will have breadth and wisdom and true learning, . . . then he will be humble, reverent, and eager to know the truth; and only when a man arrives at this mental and spiritual condition is he fit to be a specialist."

He concludes his volume with a chapter on the "Genesis of These Demands,"

bringing us to agreement on the following main truths in education: (1) "That we must educate individuals, not masses; (2) that we must educate by sympathy, not by compulsion; (3) that we must reckon with and must enlist all the social forces,—of which the school is but one,—that are molding the child's life; (4) that we must strive for "balance,"—that is, for a simultaneous, harmonious development of body, mind and soul; (5) that we must ever keep in view, as the supreme goal of education, the child's social and moral life. "To secure these things and to build from them the new American education is to be the absorbing work of the twentieth century. Whether it be done or whether it be not done means life or death to these United States."

CHARLES F. PARK, '92.

NEWS FROM THE CLASSES

1868.

ROBERT H. RICHARDS, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

Professor and Mrs. Richards spent a quiet summer at Randolph, New Hampshire, at their little camp which faces Mt. Adams and Mt. Madison and Starr King Ravine. The scenery of the mountains was very beautiful, presenting variations at every change of atmospheric conditions at every hour of the day. They enjoyed especially the study of the birds and wild things, of which there were many to be seen. A few amusing incidents varied the usual daily events. They established friendly relations with sparrows and juncos by scattering crumbs, and later, the secretary's ingenuity was taxed to keep the squirrels and chipmunks from the birds' feast. The secretary and his household were also annoyed by some nightly visits from a wild animal, but by the help of flash lights and a revolver, the supposed "bear" was proved to be a porcupine. Two marauding skunks were also despatched, which the secretary found was not favorably regarded by his farmer friends, who desire the pelts in October, when a dark skin is valued at \$4 and a white one at fifty cents. Professor Richards spent a part of the summer in the West among the mines.—At Hancock, Mich., on July 31, a number of the Tech men got together and invited the secretary to dinner and afterward went to the theatre. The party consisted of L. H. Goodwin, '12, G. B. Hilton, '15, F. H. Abbott, '05.

1872.

C. FRANK ALLEN, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

The fortieth anniversary of the graduation of the class was celebrated on May 20. Getting together at the Technology Club in the morning we paid our respects to Professor Osborne in the mathematical library, and were then received by President Maclaurin, and learned something from him of the new site and "New Technology." After lunch at the City Club, we took taxis to the new site, traveled by launch in the Charles River Basin, through the lock, and down among the pile bridges of the Charles to the harbor, where the tug *Pioneer* of the Eastern Dredging Company met us for a harbor sail. Returning about six o'clock, we had our dinner at the City Club with Professor E. C. Pickering as our guest. Everyone had his turn at saying something and the reunion was voted a success. Those present were Allen,

Brewster, Fallon, Farley, Hunt, B. H. Locke, E. C. Locke, Minot, Patch, Stone, Upton, Wales, Ward. Letters or telegrams of regret were sent by Adams, Chapman, Herrick, Hodge, Sawyer, Sparrow, Stafford.

1875.

EDWARD A. W. HAMMATT, *Sec.*, Hyde Park, Mass.

The secretary is putting in more or less time trying to collect information which will enable him to publish a new class directory.—It is desired to publish the name and address of every man ever connected with the class, even if he was also connected with other classes,, so it is hoped that any one seeing this who had any connection with '75 and who has not already done so, will at once communicate with the secretary, so as not to delay the publication.—Replies come in rather slowly, but I am pleased to say that I have received several from men whom I had not heard from for many years, some in fact not since leaving M. I. T.

EDMUND M. WHEELWRIGHT

Edmund M. Wheelwright, a well-known architect of Boston, Mass., died on August 15. He was born at Roxbury, Mass., in 1854 and was graduated from Harvard University in 1876. He studied architecture at the Massachusetts Institute of Technology and in Europe, after which he entered the employ of Peabody & Stearns, of Boston. In 1883 he went into business for himself and later founded the firm of Wheelwright, Haven & Hoyt. From 1891 to 1895 he was city architect of Boston and designed the City Hospital and other municipal buildings. Since 1900, when he was engaged to design the architectural features of the Cambridge Bridge, he had become one of the most notable bridge architects of the country. Mr. Wheelwright was consulting architect for the great arch bridge across the Connecticut River at Hartford, Conn., completed four years ago. He was a fellow-member of the American Institute of Architects, a member of the Boston Architectural Club and was the author of several books on architectural subjects.

—Among address changes may be noted the following:—F. S. Blanchard, 1726 Marquette Bldg., Chicago, Ill.—Geo. Bowers, 359 Westford St., Lowell, Mass.—Wm. C. Edes, 908 Phelan Bldg., San Francisco, Cal.—Lothrop H. Faulkner, L. H. Faulkner & Co., Aberdeen, Wash.—Geo. B. Ferry, 419 Broadway Milwaukee, Wis.—J. Murray Howe, 70 Devonshire St., Boston, Mass.—J. Q. Kilby, 127 St. Botolph St., Boston, Mass.—Herbert G. King, 27 Buhl Block, Detroit, Mich.—Francis W. Lee, 36 Temple Pl., Boston, Mass.—David W. Phipps, 43d Ave. W. and Grand Boulevard, Seattle, Wash.—John C. Sherlock, 4th Nat'l Bank Bldg., Cincinnati, Ohio.—Chas. A. Simpson, 231

Dudley St., Boston, Mass.—John A. Wilson, The Law Bldg., Baltimore, Md.

1877.

RICHARD A. HALE, *Sec.*, Lawrence, Mass.

The Metropolitan Construction Company, of which Henry H. Carter, '77, is president, has recently sold its plant to other companies and has retired from the field of active operations. Mr. Carter has spent several months in Europe during the last summer. He will continue to act as consulting expert engineer in various engineering matters which arise, and his headquarters will be in Boston.—George A. Nelson, '77, assistant engineer, city of Lowell, has made special reports of the condition of the Lowell bridges during the summer, especially the bridge just below the Pawtucket dam. This bridge has been a source of fruitful discussion in the past and a new bridge has been recommended for this locality.

CHARLES HENRY FISHER, S. B.

Charles Henry Fisher who died September 15 was born in Canton, February 9, 1851. He attended the public schools and fitted for the Institute, entering in the fall of 1873. He took the regular course in mechanical engineering, being graduated with high standing in 1877. After graduation he was engaged in mechanical engineering in various parts of the country. For a short time he was instructor of drawing in an institute in Charleston, South Carolina. Returning north, he was appointed assistant professor in mechanical engineering at Technology, which position he held for a few years. Later he resigned and was afterwards engaged with Channing Whitaker, mechanical engineer, at Lowell, Mass. On account of ill health he was obliged to give up business entirely and devoted himself to his physical health.

Of a pleasant and genial disposition he was esteemed by his classmates and his pupils, and his sturdy and conscientious ideas made friends for him in whatever environment he was placed.

He died September 15, 1912, of an organic heart disease to which he had been subject in the later years of his life. He was unmarried and leaves a sister, Mary Curtis Fisher, who resides in Ponkapoag.

1881.

FRANK E. CAME, *Sec.*, Metcalfe Apartments, Westmount, Quebec, P. Q.

FRANK H. BRIGGS, *Asst. Sec.*, 22 High Street, Boston, Mass.

Frank G. Darlington has spent the season, as usual, at Hyannisport.—Major Frank H. Briggs has been very active in athletics this summer, having run off the Barnstable County Agricultural Society Athletic games and the local games held under the auspices of the Municipal Athletic Association of Boston.

1882.

WALTER BRADLEE SNOW, *Sec.*, 170 Summer Street, Boston, Mass.

On Thursday, May 24, a chapel, erected by Mrs. George L. Heins in memory of her husband, who was a member of the class of '82, was dedicated at Lake Mohegan. Cardinal Farley lent honor and dignity to the occasion. The building, which is declared to be an architectural gem, embodied many ideas secured by the architect, William Lawrence Bottomley, on a trip to the south and middle of France, the locality from which the LaFarge family came. The stone was taken from the adjoining walls and carefully laid to preserve the lichen. The church is 100 ft. x 40 ft. with a low tower at the northwest corner, the upper part of which is used as a choir and organ loft. A stained glass window of a figure of St. George by John LaFarge at the east end of the church is inscribed with the words "In memory of George Lewis Heins, March 24, 1860, Sept. 25, 1907." Another beautiful window in the west of the building bears the inscription, "In memory of John LaFarge, April 8th, 1780, Jan. 24, 1858, and Louosa Bensse de St. Victor, his wife, Dec. 4, 1895." Over the transept rises a copper spire bearing a weather vane representing St. George seated on his horse slaying the dragon.

1885.

I. W. LITCHFIELD, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

The engagement of Mrs. Kate Stevens Bingham to James Hervey Simpson Bates of Hoboken and New York is announced. The wedding will take place in mid-winter. Mrs. Bingham, who is the daughter of Mrs. Isaac Ingalls Stevens of Dorchester, is a writer and lecturer, a member of the New England Women's Club and the Professional Women's Club. She is a D. A. R., still retaining her membership in a chapter of Portland, Ore., where she lived several years.—George H. Nye, who for the past sixteen years has been superintendent of cemeteries in New Bedford, was recently chosen by New Bedford City Council as city engineer. The selection of Mr. Nye is regarded as an excellent one as he has had much experience leading up to his present position and has proved himself an able and efficient official. Ever since he left the Institute he has been connected with public work in his native city and this bestowal of its highest engineering office is a very marked compliment to our classmate, who has fairly won it.—Charley Brown has moved from the John Hancock building, 49 Federal St., to 140 W. Washington St., where his firm, C. D. Brown & Co., has taken spacious quarters for the exhibition of Brown-board which has jumped into immediate popularity. This feature of the business has grown so rapidly that it has become dominant and in connection with Brown-board,

the firm is prepared to furnish complete interiors, including wood-work of all kinds, from medicine closets to mantle-pieces.—It is a matter of great satisfaction to the class that at the Eighth Annual Congress of Applied Chemistry, that was held in Washington and New York in September, much of the credit for perfection of arrangements and the general success of the meeting was given to Arthur Little who, as president of the American Chemical Society, was largely responsible.—Nelson MacRae, son of Hugh MacRae, entered the Institute this fall.—W. J. Mullins, who has been spending the summer at Hyannisport, made two or three visits to Boston and took the opportunity to visit among his classmates. Mullin's health is somewhat better than it has been and he is looking forward to the time when the class shall hold its meetings at some other time than the Saturday night before Easter, so that he can attend the festivities.

1888.

WILLIAM G. SNOW, *Sec.*, 24 Milk Street, Boston, Mass.

W. G. Besler is one of the directors of the General Railway Equipment Co., New York.—This company manufactures and installs complete systems of special electrical equipment for railroads.—The *Boston Herald* of June 5 contained the following:

By the appointment of Henry J. Horn to succeed Frank Barr, who has resigned after serving 44 years as the operating vice-president of the Boston & Maine system, a new step in a policy that has been adopted by the New Haven, of gradually displacing with its own officials the heads of the subsidiary system, has been established. Mr. Horn, who will be in charge of the road's operation, has been operating vice-president of the New Haven system since Jan. 1, and while in this office has been reputed as showing great executive ability. Upon graduating from the Massachusetts Institute of Technology, he was connected with the Burlington lines and later served the Northern Pacific under Mr. Mellen.

With Mr. Mellen, Mr. Horn came to the New Haven, and was appointed assistant to President Mellen Dec. 1, 1910.

—Miss Susan Thayer daughter of the late Eugene V. R. Thayer was married June 1 to Henry Forbes Bigelow at Lancaster, Mass., —Fred E. Ellis is doing a lot of road building in and about Hornell, N. Y. The following address changes have been noted:—Eugene S. Daniell, Greenland, N. H.—William L. Dearborn, Barclay, Parson & Klapp, Enna No. 1, Havana, Cuba—A. Prescott Follwell, 50 Union Square, New York, N. Y.—Ambrose P. Gaines, 814 James Bldg., Chattanooga, Tenn.—Everett K. Taylor, 40 Wall St., New York, N. Y.—Stewart Wrightington, 40 Central St., Boston, Mass.

—Fred J. Wood has removed from Foxboro, Mass., to 57 Westbourne Road, Brookline, Mass.

1889.

WALTER H. KILHAM, *Sec.*, 9 Park Street, Boston, Mass.

A very interesting paper on the "Commercial Development of Chemical Processes" was read by Jasper Whiting at the Eighth International Congress of Applied Chemistry on Sept. 10, 1912. Although on a highly technical subject it is written in such a way that even the secretary was able to read it with pleasure.—Fiske is interested in increasing the size of the Technology Club of New York and certainly the inducements which are held out are practically irresistible.—Sanford E. Thompson has issued a useful pamphlet on the "Practical Design of Reinforced Concrete Flat Slabs," which he read at the Eighth Annual Convention of the National Association of Cement Users, March 11, 1912.—Brewer is treasurer of the National Nut Grower's Association and is busy raising pecan nuts at Newport, Florida.—The annual report of the Chicago Peace Society contains a lifelike portrait of Beals, their secretary.

1890.

GEORGE L. GILMORE, *Sec.*, Lexington, Mass.

The following circular has just been mailed to all the members of the class:—

This is to remind and advise you of the progress on the class fund toward raising the Forty Thousand Dollars due from us for the Alumni Fund in aid of Technology.

To date, \$25,184.00 has been subscribed and we stand seventh in the list of classes. Certainly a good showing, but we should do much better as this amount comes from only forty-six of the one hundred and eighty-one members, or only 25 4-10 per cent. of the class. In the number of subscribers of the whole class as compared with other classes we are only in tenth position, and that is altogether too low. We must be nearer the top in percentage.

We know that many do not feel able to give \$44.00 a year for five years, but if you can and have not, please remember that for every such subscription two of our number have generously agreed to give a like amount, making \$88.00 a year more for five years. If you find you can increase any subscription already made, don't fail to do so, and the earlier the better.

If you are not in a position to do much, remember that every subscription counts, and to bring the number of subscribers of the whole class up in rank, you can at least go into your pocket to the extent of a few dollars per year for five years and so help bring the class to its proper standing. Think it over and help a little. If you have mislaid the subscription card let us know and we will gladly send you another.

This notice is sent to every member of the class, whether he or she has subscribed or not, for we know you are all interested not

only for the glory of "Ninety," but for the Institute itself, and in the new location in which the boys of future years will work and grind, as we did more than a score of years ago.

The total amount raised by the alumni to date is \$422,591.88 from 1960 subscribers. As you see, we are still far short of the million promised, so try to do your share to help the good work along, that when we meet for the twenty-fifth reunion in 1915 we can all be proud of the fact that we are members of the great and only "Class of Ninety."

The circular is signed by Charles Hayden, chairman, 87 Milk St., Boston; George L. Gilmore, secretary, Lexington, Mass., William Z. Ripley, John L. Batchelder, Atherton Loring.—October 3, 1912.

Joseph B. Baker has become associated with Messrs. Rickard & Sloan, promoters of "productive publicity," *Evening Post* Building, New York. Baker has been actively and widely identified with electrical engineering work and has contributed largely to electrical literature. He will continue to carry on his own business at 558 West 158th St., New York, in addition to his work with Rickard & Sloan.—In the August *Munsey* is an article on "Millionaire Bankers of Boston" who have risen by their own efforts and mention is made of our classmate, Col. Charles Hayden of Hayden, Stone & Co.—Prof. G. N. Calkins and his family spent the summer at their cottage in Wood's Hole on the Cape.—Rev. George F. Weld, rector of the Church of St. John the Evangelist of Hingham delivered a sermon to the First Corps of Cadets at their annual muster in July. His text was "Go Forward, Christian Soldier."

At a meeting of the Manuscript Club at Wakefield in June, Miss Marie Ada Molineaux, secretary of the Boston Browning Club, gave a talk on many unknown incidents in the life of the poet, Robert Barrett Browning and his wife and son, with whom Miss Molineaux was acquainted.

Address Changes

Dr. Franklin W. White's residence is 322 Marlboro St., Boston, Mass.—George S. Selfridge is at 50 Congress St., Boston, Mass.—Arthur D. Ropes' address is 19 Washington St., Boston, Mass.—Henry H. Pope is with the Great Northern Paper Co., Millinocket, Me.—Miss Marie I. Molineaux is residing at 97 Newbury St., Boston, Mass.—H. A. Kennicott is located in Nebraska City, Neb.—Karl H. Hyde resides at 71 Pleasant St., Attleboro, Mass.—Miss Susan J. Hart is at Boston Post Road, Madison, Conn.—William I. Finch is with the Finch Mfg. Co., Scranton, Pa.—John Dearborn's business address is 59 Temple Place, Boston.—R. G. Walker Butters is with the N. E. Tel. & Tel. Co. at Haverhill, Mass.—Spaulding Bartlett has moved his residence to 7 Scott St., Cambridge, Mass.

1891.

HOWARD C. FORBES, *Sec.*, 88 Broad Street, Boston, Mass.

Arthur Hatch, president of the Bay State Dredging Company, has had some interesting experiences with his dredges. He has a contract for dredging the channel of the St. Croix River, which forms the boundary between the United States and Canada, coming between Maine and New Brunswick. The Canadian government is paying one third of the cost of the work and the United States government the remainder. The river has been stopped up principally by sawdust, and now the governments are making a channel about 200 feet wide and sufficiently deep at low water. This work will extend from Eastport up to Calais, being carried on a few miles each year. There is a twenty-four foot tide on the St. Croix River which causes a very swift current. Last June on a moonlight night at 11 P.M. the river steamboat, *Grand Manan*, carrying passengers up the river, got mixed up in some way with the current and ran directly into the dredge, which was anchored on the United States side, and sunk it. This accident will involve a law suit which will come up in the United States courts in Portland during the winter. The captain of the dredge was lost and the other men had a narrow escape. The dredge sank in about two minutes. The A frame of the dredge caught the bow of the steamer, so that she could not be freed until the tide went down. The men on another of Hatch's boats, a powerful tug, had an experience in Boston harbor. They picked up a large gasoline yacht in distress which was sinking rapidly, owing to the explosion of the air tanks which were used for starting the motors. The tug happened to carry some large steam siphons, by means of which they were able to keep the yacht afloat until they got her into one of the shipping yards. Hatch is busy calculating how much the salvage will be.—Frederick W. Fuger, captain of the 13th Infantry, U. S. Army, is now in the Phillippines where he went before our last reunion.—John Highlands, familiarly known as Jack, gave me his card the other day which reads "Insurance Broker, representing Goff and Little, 68 William St., New York, tel. 2348-John." Be sure and telephone John in ample season before your next fire.

The secretary has just learned of the death of Nathan R. Pratt.

1892.

W. A. JOHNSTON, *Sec.*, Mass. Inst. of Tech., Boston, Mass.C. H. CHASE, *Asst. Sec.*, Tufts College, Mass.

A. L. Goetzmann, who for the last seven years has served as secretary of the Millers' National Federation, resigned from that position July 8 and on Aug. 1 became secretary and general manager of the Listman Mill Co. of La Crosse, Wisconsin. An article

appeared in the *Weekly Northwestern Miller* highly complimentary of Goetzmann's work while secretary of the federation.—Francis Walker Ph.D. has received an appointment from President Taft to serve as a deputy commissioner of corporations in the Department of Commerce and Labor. The appointment was confirmed by the Senate August 22, 1912.

By an oversight of the printers of the REVIEW the cuts which should have accompanied the story of our reunion last spring were omitted from the July REVIEW. This will explain why they are printed in this issue.

The following address changes for mail have been received:—S. Burrage, Eli Lilly Co., Indianapolis, Ind.—Harry J. Carlson, 89 State St., Boston.—Geo. W. Chickering, 6 Beacon St., Boston.—Frederick H. Cunningham, 15 Ashburton Pl., Boston.—Herbert B. Fitch, 1243 Fifth St., San Diego, Cal.—Albert L. Hart, 231 W. 39th St., New York.—M. P. Gentry Hillman, Empire Bldg., Birmingham, Ala.—Mrs. Geo. U. G. Holman, 60 Westland Ave., Boston.—Francis Howard, 5 W. 28th St., New York.—Alfred McCulloch, 10 Radford Lane, Ashmont, Mass.—Percival B. Metcalf, Tracy Music Library, 1 Beacon St., City.—E. G. Monahan, 15 Glen Ave., Mt. Vernon, N. Y.—Arthur G. Ranlett 4235 Terrace St., Oakland, Cal.—Philip M. Reynolds, care of Scott & Williams, 88 Pearl St., Boston.—Henry J. Schlacks, 54 W. Randolph St., Chicago, Ill.—R. Selfridge, 103 E. 29th St., New York City.—Walter B. Trowbridge, 35 W. 32nd St., New York City.—William Warren, 100 Summer St., Boston.

1893.

FREDERIC HAROLD FAY, *Sec.*, 60 City Hall, Boston, Mass.
FREDERIC H. KEYES, *Asst. Sec.*, 739 Boylston Street, Boston, Mass.

While making a short trip to the Pacific Coast early in the summer, the secretary was privileged to attend meetings of the alumni in Seattle, Portland (Ore.), San Francisco, Los Angeles and Denver. In each of the coast cities there is an active organization of the local Tech men with frequent luncheon and dinner meetings and occasional outings, and these local associations are all doing splendid work in binding the fellows together, extending their acquaintance with one another, and in welcoming newcomers and making them feel at home. The spirit of the West is one of hospitality and rapid assimilation, and the Western spirit and Tech spirit combine to make these organizations particularly attractive to the Tech man newly arrived on the coast. He soon becomes a part of the local organization, takes pleasure in its meetings, and often finds that the acquaintance thus made with Tech men is of material help to him, socially and in a business way, in the community at large. While the older alumni show up well in these organizations in proportion to their numbers, a larger part



CLASS OF '92
Terrace Gables, Falmouth Heights



CLASS OF '92
"All aboard for Martha's Vineyard"



CLASS OF '92

The Martha's Vineyard Trip (Bourne, Shepard, Ingraham, Sager, —, Potter, Newkirk)



CLASS OF '92

Fuller and Heywood on duty



CLASS OF '92

Winning baseball team (Park, Shepard, Johnston, Sager, Fuller, Ingraham, Kales, Hall)



CLASS OF '92

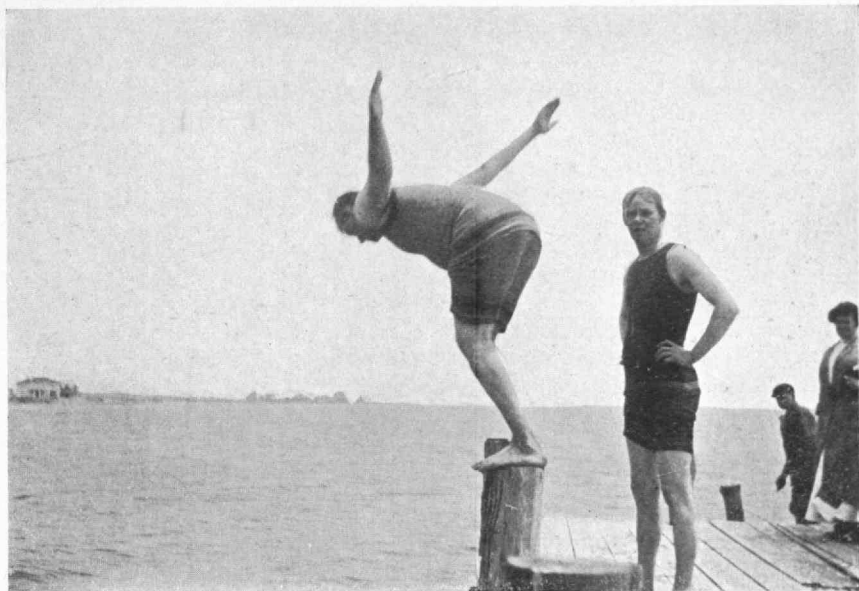
They couldn't down the Faculty (Newkirk, Sargent, Curtin, Ober, Moore, Heywood, Hutchinson, Locke)



CLASS OF '92
 "Papa" Locke at the Bat

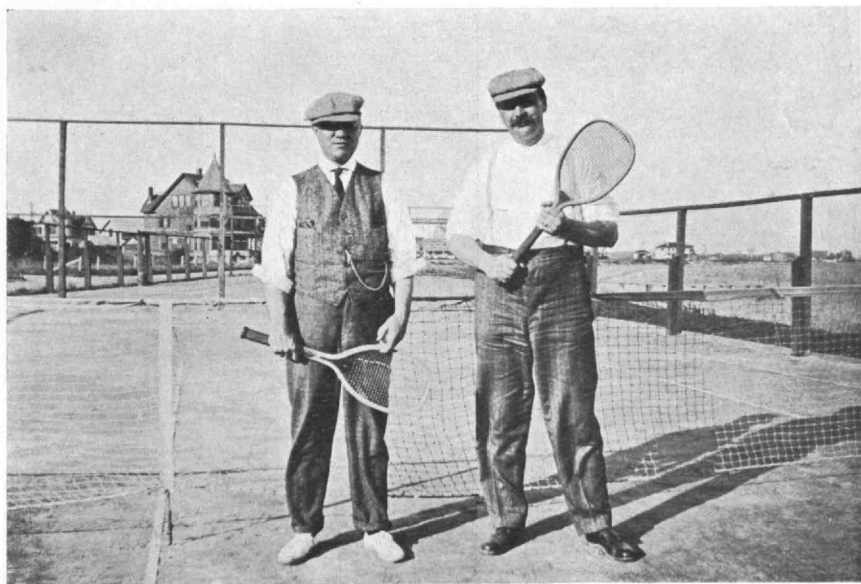


CLASS OF '92
 Kales holding down First



CLASS OF '92

Kales and Hutchinson posing for our readers



CLASS OF '92

World's Champions, Heywood and Johnston

of the membership is of men of recent classes, and this indicates a healthy growth of each organization, which promises well for the future and is certain to strengthen the whole Alumni Association and the interest of Tech men generally in the Institute. In Denver conditions are somewhat different, for while it is the home of some of our most loyal alumni, they are almost all engaged in mining work, which takes them all over Colorado and the surrounding country and it is not possible to get these men together in considerable numbers for frequent meetings as in the cities of the coast. The Rocky Mountain Technology Club of Denver is one of the old alumni organizations and covers this whole field. It has for years done fine work in keeping up its organization under these difficult conditions. In all of the cities visited the keenest interest was shown in accounts of the recent happenings at the Institute, and the men seemed to appreciate the opportunity of pumping information out of the secretary by means of questions. At the Los Angeles meeting W. T. Knowlton, '93, and F. H. Merrill, '93, were present. Knowlton is engineer of sewers for the city of Los Angeles and in that rapidly growing community he finds work enough to keep him busy. Merrill has been superintendent of the Los Angeles Soap Company for many years; he hopes to spend his vacation in the East this fall. At the Denver meeting two '93 men also were in attendance, J. Y. Parce and M. B. Biscoe. Parce is thoroughly wedded to his work as an educator and for a number of years has taught at the Manual Training High School there. Biscoe practiced architecture in Boston from his graduation until a few years ago when he removed to Denver, and in a short time he has not only won a position among the leading architects of that city, but he is prominent also in municipal affairs and work for civic betterment. One word to other members of the class: If you are going West look up the Tech men and especially the '93 men in the cities you visit, you will be well repaid by the welcome which awaits you.

Arthur E. Fowle, who has spent many years in Mexico as superintendent of the soap and glycerine department of La Compania Industrial Tabonera, of Gomez Palacio, Durango, has found the revolutions in that country more than he can stand, and last spring he returned with his family to the States and has taken a position as plant manager of the Yaryan Naval Stores Company at Gulfport, Miss. In a recent letter to the secretary he writes:

You will note from the above that I have changed my location, and now find myself even better located than during my long stay in Mexico. I have charge of a plant which is working on a new patented process for the extraction of rosin and turpentine from the waste timbers of the southern pine lands, and it is most interesting to see what can be obtained from old knots and stumps that have been, up to the present time, nothing but a detriment to the lands in this section of the country. You may rest assured that I am more than glad to be on this side of

the Rio Grande and away from all the troubled conditions which existed all about me for the last two years. In fact, just before I left, our house was directly in line of battle and for three and a half hours I had the whole family and servants hidden in an inside closet made of adobe walls, and after the battle was over I went out into the kitchen and picked several Mauser bullets out of the wall. This was about the finish, and we packed up that night and hiked out of the country. My experience during these two revolutions would fill a small book.

—William Wyman Crosby, Jr., arrived at the home of Billy Crosby on the first day of July.—Another announcement is that of Mr. and Mrs. Grosvenor T. Blood of the birth of a son, Grosvenor Anderson, on September 29, 1912.

Address Changes

The following have been reported since the recent issue of the *Register of Former Students*: S. H. Brackunier, mining engineer, Nevada City, Cal.—Charles H. Deitering, architect, Central National Bank Building, St. Louis, Mo.—George L. Mirick, Curve Road, Stoneham, Mass.—George Moore, 330 West 102d Street, New York, N. Y.—Archibald Murray, care Mackenzie Mann & Co., Forfar, Ontario, Can.—Alden R. Palmer, 34 Ransom Street, Muskegon, Mich.—Howard Van Doren Shaw, 39 South State Street, Chicago, Ill.

1894.

S. C. PRESCOTT, *Sec.*, Mass. Inst. of Tech., Boston, Mass.

J. N. Ferguson has been appointed assistant engineer of the Port Commission for the development of Boston as a shipping center. It is a very important position and one in which Ferguson's service with the Harbor and Land Commission and the Charles River Basin Commission will be invaluable. His new headquarters are at 40 Central Street, Boston.—J. M. Holder was recently heard from, his address being 20 Part Street, West Lynn.—H. H. Johnson, after many years of experience in the Indian schools of the West, has accepted a position with the Cushman Trades School at Tacoma, Wash.—E. C. Klipstein is the senior member of the architectural firm of Klipstein & Rathmann, Chemical Building, St. Louis, Mo.—H. Landauer is located in Milwaukee, his address being 402 Lake Drive.—F. W. Lord is at the head of the Lord Electric Company at the New York office, 105 West Street.—J. L. Nisbet was recently heard from at Savannah, his old home.—F. M. Noa is now connected with the Harrison School at Minot, N. D.—J. P. Story, Jr., is in the real estate business in Washington, D. C.—G. M. Turner is associated with the Hohns Machinery Mfg. Co. at Sparta, Mich.—B. E. Weidinger sends 150 Nassau Street, New York, N. Y., as his present address.—C. G. Abbot has recently returned from a summer spent in

Algeria, where he has been making astro-physical measurements which he believes will be of very great value.—J. C. Valentine has been for some time connected with one of the large street car companies with headquarters in South Framingham.—Clafin, in addition to being at the head of the Avery Chemical Company and president of '94, is secretary of the New England section of the Society of Chemical Industry.

1896.

CHARLES E. LOCKE, *Sec.*, Mass. Inst. of Tech., Boston, Mass.
J. ARNOLD ROCKWELL, *Asst. Sec.*, 24 Garden Street, Cambridge,
Mass.

R. E. Bakenhus, who was located at the Boston Navy Yard last year, has now been transferred to Washington. While he was in Boston he received orders to take a trip to Panama. He was accompanied by Parsons, '97, and Thurber, '00. He stopped at the Hotel Tivoli at Ancon and in the two weeks he was there covered the Isthmus pretty thoroughly, including all the canal work and the towns of Colon and Panama, as well as the ruins of Old Panama. He had a trip in a launch, furnished by the commission, up the Pacific end of the canal, which was about completed. He had a fine chance to inspect the locks at Gatun where the concrete was already completed, and the steel gates and machinery were already installed. At Miraflores he saw the concrete work in full blast. He was taken through the Culebra Cut by one of the commissioners in his railroad motor car. He states that the fine thing about the enterprise was the splendid *esprit de corps*, and the harmonious working organization.—Walter M. Stearns writes as follows:

For the past four years I have been district manager of the supply department and also assistant district manager of the General Electric Company in their southern district covering the states of South Carolina, Florida, Georgia, Alabama, Mississippi, and Louisiana, with headquarters at Atlanta, Ga. I have just received a new appointment which will transfer me to Pittsfield, Mass., having been made the manager of heating device sales of the General Electric Company, and my headquarters will be at our factory at Pittsfield. I shall be glad to see any '96 men who happen to come that way.

—Fred Coburn, who since he left Tech has been located in Lowell, having succeeded to his father's business as a dealer in paints, oils, varnishes, etc., at 63 Market Street, suffered a severe fire loss on March 27. The inflammable nature of the materials made a very spectacular blaze. The loss was estimated at \$75,000 with a partial insurance.—N. F. Rutherford, who has been operating a foundry and machine shop at Saltillo, Mexico, for a number of years writes that the present conditions in Mexico are bad, and to all appearances they are liable to be worse before they get better. He considers his business very promising if condi-

tions can only come to a settled state.—Charles H. Paul writes as follows:

I have been with the Reclamation Service for a little over seven years since the completion of construction work on the Belmont filters in Philadelphia. For about five years I was construction engineer in charge of designs and construction on the Lower Yellowstone irrigation project in eastern Montana. We built irrigation works there for about 60,000 acres of land. The main canal at its head carries about nine hundred second feet and the work as a whole was very interesting and instructive. The canal structures, especially those taking care of cross drainage, were of considerable size and practically all of the structures on the project were built of reinforced concrete.

I came to Idaho about two years ago and for a little over one year was in charge of the operation of the Minidoka Project, which when entirely completed will cover about 130,000 acres of land. There we had the largest hydro-electric pumping plant for irrigation in the world. The pumping unit for that project covers about 50,000 acres. Power is developed at the main diversion dam of the project, is transmitted about fifteen miles to the pumping stations and is lifted to a total height of 90 feet in three lifts of about 30 feet each. About 5,500 HP was developed at the power plant. The construction of this power plant was nearly completed and two of the five units were in operation when I took charge of the project. While I was there we furnished water for irrigation of about 50,000 acres on both the gravity and pumping units.

About a year ago I was given charge of the construction of the Arrowrock Dam, which will store about 250,000 acre feet for use on the Boise Project. The dam site is located up the Boise river about twenty miles above the city of Boise. This will be the highest dam in the world, and will have a total height of about 350 feet with a crest length of about 1,060 feet. It will be built of concrete, designed for gravity section and curved in plan to a radius of 662 feet. The excavation for foundation will have to be carried from 60 to 80 feet below the river bed and the total amount of this excavation will be about 225,000 cubic yards, and will cover an area of about one acre. There will be over 550,000 cubic yards of concrete in the dam and the excavation for the spillway will amount to about 500,000 cubic yards. We have built and are operating a standard gage railroad seventeen miles long from Barberton, a station just outside of Boise, to the site of the work. This is the only railroad in the United States being built and operated by the government. We are building a power house at the diversion dam about 15 miles below Arrowrock, which will develop about 2000 HP for use during construction of the Arrowrock Dam, and later this power house will be used for commercial purposes on the Boise Project. Some of our visitors who have looked over the construction camp at Arrowrock have said that it is the best arranged and equipped construction camp in the country. We have accommodations for about 1,000 men, we operate a large warehouse, a mercantile store which handles all articles necessary to supply the personal wants of the men and families in the community, a well equipped machine shop, a good sized club house, a very convenient office building, the usual number of dormitories and bunk houses, a mess house that will take care of 750 men at one sitting and in which were served during the month of December over 50,000 meals, a stable that will house about 70 horses, and a bathhouse and a laundry. All the principal buildings are heated from a central heating plant. We have a complete water and sewerage system, and a well equipped hospital with a physician and two trained nurses always on the job.

The work above mentioned has practically all been done during last year. We have also built a diversion tunnel which is to take care of the river during construction of the dam. This tunnel is about 500 feet long, 30 feet wide, and 25 feet high. The bottom and sides are lined with concrete and the top with timber. Its estimated capacity is 20,000 second feet. The excavation for the dam will be started this summer as soon as the spring flood has passed, and about the first of next year we expect to place the first concrete in the dam. It will require at least five years from this time to complete the work.

It is needless to say that I shall be very glad to see any of the boys who happen to come out this way. It is very easy to get to Arrowrock from Boise, as a train leaves there every morning connecting with our train at Barberton.

I may say also that George H. Bliss, '96, is located at Boise, and has charge of the operation and maintenance of the canal system on the project. I was over at Hermiston, Oregon, a little over a year ago and visited with H. D. Newell, who is in charge of the Umatilla Project, with headquarters there. There are several other '96 men in the Reclamation Service, some of whom I have run across at one time or another since I have been in the West.

—Paul W. Litchfield gives the following account of his "past life":

About twelve years ago I took charge of the factory of the Goodyear Tire & Rubber Company at Akron, Ohio. At that time we had 150 employees, and about 60,000 square feet of floor space, 400 HP, and were doing a business of about \$1,000,000 per year.

We have now 5000 employees, over 1,000,000 square feet of floor space, 8000 HP, and are doing a business of about \$25,000,000 per year.

At present we are making over 4000 automobile tires per day. We are endeavoring to develop the tire industry along scientific lines. We have a large mechanical engineering department, an experimental engineering department, testing laboratory, and an industrial and research chemical laboratory.

We have just lately introduced several branches of welfare. We are maintaining a fully equipped hospital with operating room, wards, etc., with regular doctor and nurse in attendance. Factory dining rooms have been installed. We have organized a technical society which holds a meeting every week, the different members of our staff giving lectures and instructions on technical subjects to our foremen and employees. We also maintain a factory library, where all literature (books and magazines) pertaining to our business is kept for the use of our employees, with an experienced librarian in charge.

We have also established a library and laboratory for the study of aerial navigation, and have several engineers who will devote all of their time to this subject, as we believe it is one of the coming industries.

I have made four trips abroad during the past eight years. Two of these trips were for the purpose of studying foreign tire construction in various European factories. One trip was devoted entirely to the study of crude rubber, especially the cultivated, or plantation rubber industry. The other trip was devoted to the study of aerial navigation, following up the industry in Great Britain and France.

We constructed the large dirigible *Akron* in our factory last year, and expect to make flights with it this spring and summer.

—A. W. Thompson who has been mechanical engineer in the cotton mills of the big Amoskeag Manufacturing Company at Manchester, N. H., has recently made a change, and advanced to take charge of the Lowell Machine Shops at Lowell, Mass.—Although M. L. Fuller has returned to scientific work and is acting as consulting engineer in geologic and water supply lines, he still maintains his interest in cranberries. He reports this season's crop of the companies with which he is connected as 12,000 barrels or over 50 carloads. He is now vice-president of the Cape Cod Cranberry Growers Association.—The annual class dinner of '96 was held at the American House, Boston, on May 3, 1912. The following members were present: Callan, Joe Driscoll, M. L. Fuller, Dr. Gilman, Hersey, Hultman, Hatch, Knight, Locke, Lythgoe Partridge, Dr. Rockwell, Sanderson, H.

E. Smith. Hultman gave a very interesting talk on his experiences in Europe in connection with the tour of the Boston Chamber of Commerce, and a general informal discussion followed. The matter of the Alumni Fund was also discussed, and it was decided that every effort should be made to have every man subscribe, even though it be only a small amount. Incidentally the suggestion was made that the class of '96 might in some way assume some definite part in the building of the "New Technology" and, after discussion, it was decided to refer this question to the officers in charge.—Partridge extended a cordial invitation for a class outing on one of the islands in Marblehead Harbor. It has not seemed possible to arrange for this outing during the summer, but it is understood that the invitation holds good for all time.—On July 9 Jim Melliush struck town from Illinois and as a proper observance of the event (it was a warm day), the following got together for a little lunch at the American House: Hersey, Locke, Lythgoe, Maclachlan and Rockwell. It was a delightful affair, and it is to be hoped that other members who come to town will give their classmates an opportunity to meet them in this same way.—Albert H. Spahr, formerly of McClure and Spahr, has been the successful competitor for the design of a model town which is to be built by the Pittsburgh Crucible Steel Company on its holdings of 465 acres of undeveloped land at Midland, Pa.

Following out the lines in a general way of Essen, Germany, where the great Krupp steel works are located, the Pittsburgh Company will have the town site of Midland on the opposite side of the street railway tracks from the furnace and new mills laid out with curved, paved boulevards, and broken with beautiful parks and flower beds, without a single straight street on the entire site. Facing these boulevards will be modern homes for the men who will work in the new mills now building. The plans for the houses call for individuality in design, no two being alike, and each having all modern arrangements. The houses will be surrounded by lawns with plenty of space in front for decoration with flowers and plant life. The company will also establish parks and recreation grounds and a race track. Schools will be established and through a purchase of what is known as the "Christler Farm" on the hill overlooking the present town site, wooded land is available for natural parks and picnic grounds as well as sites for homes for mill officials. All told, there is about 500 acres of land to be developed on this scale, and it will have no counterpart in America.

The steel company will not be able to take all of the present built-up section of Midland into this new plan, as there are 2000 people living there now under original conditions that are common in industrial communities.

A portion of the old section of the town, however, that the company takes over will be at once re-built and contracts will soon be awarded for the first fifty houses. The company proposes to encourage the workmen to buy their homes and become permanent residents of Midland. A filtration plant is to be added to the water-works system and this plant has already been ordered. The accommodations possible in this new town will be for 10,000 people and within the next year it is confidently believed that 51,000 will be living there. By Jan. 1, the steel works will be in operation and a large force of men will be employed.

—Grush reports that he is still with the New England Tel. & Tel. Company, in Boston. Just now he is handling work in con-

nection with the Electric Show in Mechanics Building, where the company has a telephone exhibit, and where some of his men give illustrations of the splicing of underground cables in manholes.—Charlie Hyde has been east all summer, making a start on his Sabbatical year from the University of California. He has had his family at Block Island for the summer, and he himself has visited the principal cities of the east, making a study of plumbing, water filtration, and other sanitary features. When in New York he was fortunate in securing access to some of the very latest buildings, both completed and under construction, and was able to observe at first hand the most up-to-date sanitary appliances. He made a hurried call on the secretary just before his departure for California. It is a great regret that he did not arrange for a little longer time in Boston, so that the fellows could get together for a little lunch with him. He plans to spend the coming winter in his work as consulting engineer for the State Board of Health of California, and will have full charge of the investigations of stream pollution in connection with the new California law regulating pure drinking water. During the time that he has been in California his standing as a sanitary engineer has received high recognition, which is not confined to that state alone.—At the N. Y. Chemical Congress in September, Herman C. Lythgoe of the Mass. State Board of Health spoke in analytical chemistry on the value of refraction as a test for certain liquids, coming to the conclusion that for routine work the refractive index has great value, for it can be more quickly obtained than any other physical or chemical constant. Geo. K. Burgess of the Bureau of Standards at Washington made a statement of the status of the temperature scale.—Since the start of the Technology Fund, '96 has occupied the 26th or 27th position on the list. The report of October 1 puts it number 28. This is a move in the wrong direction. Later classes and classes in its immediate vicinity ('10, '90, '09, '91, '93, '11, '05, '03, '06, '97, and '95) stand ahead of it. The fellows who have been holding back waiting for a little urging before sending in their subscriptions, now have an opportunity to come forward and give '96 a boost into a position among the leaders.

A recent number of the *National Corporation Reporter* contains an article relating to the successful work of Meyer Sturm as a hospital architect. Sturm for a number of years has specialized in this particular line and his reputation has spread all over the country, especially through the West and Northwest, including a large clientele in Canada. He is, perhaps the best known hospital architect in the West and has recently completed the Chicago Fresh Air Hospital, the gift to that city of James A. Patton, the wheat king. Sturm has been a frequent contributor to the leading architectural publications. He is author of "The Organization, Construction and Management of Hospitals" which is the only recognized authority on that subject in this country.

1897.

JOHN ARTHUR COLLINS, *Sec.*, 67 Thorndyke Street, Lawrence, Mass.

The secretary recently received a card announcing the birth on August 27, of Louise Fuller Hosford, daughter of Mr. and Mrs. Roger F. Hosford. Hosford is with the engineering department of the American Telephone and Telegraph Co. at 15 Dey St., New York City.—Wadleigh from St. Louis has been east during August on his annual vacation trip. He is with the Bemis Bros. Bag Co. with headquarters in St. Louis.—We have it from the *Worcester Gazette* that Professor Charles B. Breed was engaged to act as an expert consultant, at a conference held in that city in August, in regard to the elimination of the northern grade crossings. He was asked to prepare plans for the work which should look after the interests of the abutters.—Everyone in the class is probably aware that the secretary is troubled with deafness, a trouble that seems to increase as the years go by. As a result, he frequently fails to hear things that he ought, and often, things that it was not intended he should hear anyway. An instance of the latter occurred at Osterville. Just at the close of the after dinner speaking on Saturday evening, Ilsley got up and made a motion which the secretary failed to hear. In an instant the motion had been seconded by several, and passed with a cheer. The secretary turned to Breed, his neighbor, and asked what it all meant. Breed made some reply which, looking back upon it now, the secretary sees was intentionally vague. In the excitement of succeeding events the matter was forgotten by him.

And now to give better expression to his feelings, the secretary will ask to be allowed to use the first person.

Sometime in July, I received a letter from Breed, saying that he and Dougherty, who had been acting as a sub-committee, had proceeded to carry out the vote of the class as taken at Osterville, viz: "to present to the secretary some token in appreciation of his fifteen years of faithful services." That I would shortly receive such token and that he hoped I would take as much pleasure in receiving as everyone of the class did in presenting. The gift closely followed the letter, and fellow-classmates, I wish I could tell each one of you personally how much it meant to me and how much pleasure it gave me. Not for its intrinsic value, which was high, but for the sentiments and friendships that prompted it. The surprise was complete. I would like to write to everyone in the class thanking him personally, but as I believe you all see the *REVIEW*, I take this method of expressing my appreciation. The gift is highly treasured even now, and as the years come on, and the associations of college days become more a matter of memory than of participation, when some of us are perhaps no

longer here to join in the Technology cheer,—then will its value to me be increased a hundred fold.

In form it is a solid silver plate about twelve inches across, the center half being entire, while the outer half is formed by an elaborate floral design, cut clean through the metal and also finely engraved on the surface. Across the central portion is engraved:—"The Class of '97 M.I.T. presents this token to its Secretary, John A. Collins, Jr., on its Fifteenth Anniversary, in appreciation of his faithful services."

And so, fellows, let this be as a personal letter to each one, carrying my greatest thanks to every classmate, not for the gift alone, but for all that it represents.

And now let me ask this—that each man do his best to back up and support the new executive committee in its efforts to make the class more active, more united, and of more importance in the roster of the graduate classes of the Institute. One man can not accomplish this: six men can not accomplish this! Only by the coöperation of each and every man working together with a common object in view can the result be obtained. Ninety-Seven must do it and *will* do it.

1898.

ERNEST F. RUSS, *Sec.*, 68 High Street, Boston, Mass.

R. B. Whitten is an architect at Calgary, Alberta, Canada, and is meeting with great success. He has a large apartment house under way at the present time and reports the developments in that country as marvelous.—Frank E. Coombs returned about the first of September from his first vacation in a great many years. He visited the Canadian Northwest, going through the Great Lakes and was so much impressed with the opportunities for business in that country that he made arrangements at Edmonton, Alberta, Canada, to open an office for the sale of building materials, starting January 1. He will move there with his family at about that time and his address will then be 309 Canadian Pacific Railroad Building, at the above place.—L. D. Gardner is chairman of the Membership Committee of the New York Technology Club and is carrying on a very vigorous campaign to increase the membership by three hundred, so that necessary additions to the club house can be made. Gardner was in Boston the latter part of August.—Hollis Godfrey as consulting engineer is with Sewall Clapp Co., 23 North Desplaines St., Chicago, Illinois, at the present time. In fact his work has kept him away from Boston for quite a period.—Dr. H. W. Jones sailed August third for Holland and will travel through France, Spain and Portugal before returning, and hopes to see Frank Sickman, if he is not too close to royalty.—Thomas M. Roberts, formerly with the General Electric Co., can now be reached at the Delaware College, Newark, Delaware.

—The Columbus, Ohio, *Journal* tells us that John F. Wessel has been elected general manager of the Republic Railway and Light Company. He will have charge of all matters pertaining to operation and construction. Wessel has had extensive experience with the General Electric Company, and with public utility interests. While in charge of engineering and construction work in a number of southern cities he made a wide reputation by the introduction of economies and in the securing of new business.—From a Boston paper comes the following: Edward C. Sherman is the proud possessor of a Panama canal medal awarded him by Congress. He spent two years in the canal service, where he had charge of the designing of regulating works. He returned home in 1911, and last week received the medal.

The medal is of bronze, made from the metal of the old French machinery that was found in Panama when the present work of construction was begun. It is of about the size of a silver dollar and bears on the obverse side a relief portrait of Theodore Roosevelt, around which are the words, "Two years of continuous service on the Panama canal." On the reverse side is an idealized picture of the Culebra Cut with ships passing through the canal, and around it the words, "Presented by the President of the United States." It is held by an ornamental bar.

These medals are presented to all workers on the Panama canal who have served two consecutive years, and it is estimated that there are at the present time about 1800 of them throughout the United States.

Sherman was for four years engaged in construction work on the West Boston bridge, and later spent five years on the Charles river dam in the chief engineer's office.

Among the most cherished of the mementoes which he picked up in the canal zone is a watch charm of beaten or moulded gold, which was an ornament dug from the grave of one of the ancient Aztecs. This ornament is in the shape of a bat with golden body, wings and tail. Its every detail is perfect, although the whole is not more than an inch and a half long.

—George R. Wadsworth's address is 1870 E. 75th St., Cleveland, Ohio.—Harry E. Ingalls is in New York and can be reached at 527 Fifth Ave.—Ernest F. Ayers is a professor at Oregon Agricultural College, Corvallis, Ore.

1899.

HERVEY J. SKINNER, Sec., 93 Broad Street, Boston, Mass.

Rickards has recently associated himself with Eli Lilly & Co., pharmaceutical chemists, Indianapolis, as assistant director of their biological laboratories.—Ayer is at Redlands, California.—K. M. Blake is manager of the Boston Branch of the Locomobile Company of America.—Nathan is a member of the firm of Wood,

Wood & Nathan, Cincinnati, Ohio.—Cluff is with the American Cotton Oil Co., of Chicago.—Grover is professor of Physics at Colby College, Waterville, Me.—H. L. Morse is located at Fortress Munroe, Virginia. He now has the rank of captain in the coast artillery.—Street is with E. I. du Pont De Nemours Powder Co., Wilmington, Delaware.—An interesting article by Phelps appeared in the July 13th number of the *Scientific American* on the "Bacterial Purification of Water and Sewage." Phelps has undertaken very important work in connection with the pollution investigation of the Hudson and East Rivers, New York, and has assisted in improving the clam flats of Newburyport and the oyster beds of Providence. He also made recommendations for improving the polluted harbor of New Bedford.—Farnum is temporarily located at Los Angeles, California.

The following address changes have been received:—Warren M. Archibald, Galveston-Houston Electric Railway Company, Houston, Texas.—Clifford M. Balkam, P. O. Box 228, Colorado Springs, Colorado.—Walter C. Belcher, P. O. Box 452, Holbrook, Mass.—Raymond F. Bennett, 211 Commercial St., Portland, Maine.—Sylvester O. Cannon, 503 Templeton Building, Salt Lake City, Utah.—Herbert K. Conklin, 665 Broad St., Newark, N. J.—Charles F. Harwood, International Steam Pump Co., 115 Broadway, New York, N. Y.—Ross Hasbrouck, Sylvan Ave. Leonia, N. J.—Henry H. Hewitt, 201 Ernest & Crammer Building, Denver, Colorado.—J. P. Jackson, 2309 First Ave., Minneapolis, Minn.—H. P. James, 678 Maryland Ave., Milwaukee, Wis.—Harry M. Keys, 65 West 10th St., Atlanta, Ga.—James G. Leiper, Jr., Stenton & Hillcrest Avenues, Chestnut Hill, Philadelphia, Pa.—Charles S. McDonald, 311 Newhouse Building, Salt Lake City, Utah.—William S. Matheson, 302 Summit Avenue, Seattle Washington.—Carl S. Milliken, Upland Citrus Association, Upland, California.—Herbert H. Riddle, 122 So. Michigan Ave. Chicago, Illinois.—Herbert H. Starr, care of American Bridge Co., 30 Church St., New York, N. Y.—Jacob Stone, Jr., 645 Security Bank Building, Minneapolis, Minn.—Frederic Tappan, British Columbia Electric Railway Co., Ltd., 9th St., No. Vancouver, B. C.—Lawrie H. Turner, 464 Potomac Avenue, Buffalo, New York.

1900

INGERSOLL BOWDITCH.

RICHARD WASTCOAT.

WILLIAM R. HURD, 2ND.

PERCY R. ZIEGLER.

N. J. NEALE, Sec., 12 Pearl Street, Boston, Mass.

The secretary wishes to apologize to his classmates and to the readers of 1900 class news in the *TECHNOLOGY REVIEW*, for the absence of any material whatsoever in the July issue—thereby hangs a tale.

On quite short notice Neall was obliged to leave Boston early in June for a trip of inspection to the island of Santo Domingo, in connection with a projected hydro-electric development at that place, on which he has been engaged as consulting electrical engineer. Inasmuch as the extent of the water power has to be determined it has been decided by the owners of the property to get into operation as soon as possible by the installation of a temporary steam station on the North coast at a point called Puerto Plata. This will supply light and power to this town, as well as to Santiago some thirty miles south, and also render electric power available for the development of the dam which is about ten miles beyond Santiago. Ultimately, the hydro-electric power will be distributed to other towns within a radius of some thirty miles. In order to determine the conditions pertaining to the transmission line, Neall, John Brown, I, together with Mr. John L. Byrne (the local representative of the owners) and an interpreter rode horseback over the region in question, mounted on stallions, which are about the size of our ponies but very lively. There are no roads, only trails, and the manner in which the horses negotiated their way was truly wonderful. The country is quite mountainous and very strongly suggests the Sierras of California, with this exception—every bit of the region is thickly covered with vegetation. In fact, we found some plantations on hillsides so steep that had the owner tripped on the upper edge of his possessions he would have reached the other in a few seconds. The weather was not at all unpleasant, which was due chiefly to the presence of the trade winds, which blow every day. At night, land breezes occurred from the opposite direction with most agreeable results.

Brown, who had practically never ridden horse back and who drew a trotter as his lot, had a most unhappy time getting broken in. This will be more keenly appreciated by those who have undergone such experiences when it is stated that we averaged thirty to forty miles of riding per day. Brown's grit pulled him through, and before Neall left the island the last of June, he was already comfortably established in the saddle. Brown is chief engineer of the survey and other allied engineering in the field. Mrs. Brown is with him and could relate, if there were a ladies' auxiliary of the class of 1900, how it feels to take part in a West Indian revolution; she would also describe other marked differences from ours in the every-day life of the Dominicans.

The secretary's absence and failure to arrange with his associates on the class committee to take care of the class letter is also responsible for the delay in publishing some very interesting news of our New York members. The following letter from Morris, under date of March 23, gives us the good news:

I find that you, as class secretary, have not been notified of the extremely important event which took place on March 2d in this city. 1900 got together thirteen strong, and Luyties was the last man to sit down.

Hopkins and I, with Thayer's approval, constituted ourselves a committee of two to work up a little "human interest" in the affair, and, as a starter, wrote personal letters to about thirty men in and about New York.

We set a tentative date for the dinner a month ahead so that there could be no "last minute" dates, and got the few men we did see personally to go after their particular friends, with thirteen as the result.

We had dinner at the old Café Boulevard in a private room overlooking the main dining-room with facilities for "putting in the cork," by means of folding doors, if we got too noisy.

Nothing of the kind occurred, as every one seemed satisfied with the cocktails and beer provided. Right here Hopkins and myself want to apologize for the tameness of the affair with the statement that we didn't want the fellows to feel that we were trying to "run the show" and so left it to someone else to "start something" if he wanted to do so.

Those present were Jouett, Tuck, Hopkins, Blair, Fulton, Luyties, Knight, Ellis, Thayer, Morris, Walker, Hall and Rand.

We hope that with this as a starter we can get a real live, representative crowd out to the next annual dinner, and with that in mind those of us who are down town are arranging to meet at some restaurant once a month or oftener for lunch and so keep in touch.

We are indebted to Reardon for the following, respecting 1900's representation at the "Pops":

The annual pop concert on Tuesday, June 4th, was attended by the following 1900 men: Graff, Kattelle, Morris, Reardon and Remington. Graff, Reardon and Remington may be considered as of the "old guard," but we had seen neither Morris nor Kattelle for some time.

Kattelle has just severed connections with the supervising architect's office, Washington, D. C. and leaves very shortly for Chicago. Walter is married and has been very successful in his profession.

Morris has drifted East after spending some time in the desert regions of Nevada prospecting, and we enjoyed listening to his tales of the sage brush and cactus country very much.

The evening was very pleasantly spent, but there should have been more 1900 men out, especially as there are quite a number of the men about Boston now. We expected to see yourself and Bowditch there, but learned that *you* had a good excuse. This is the event of the year and I think that all the men about Boston ought to make a special effort once a year anyway to get together and talk over old times.

Reardon's remarks about getting together are very much to the point. Those who either are unable to attend, or stay away, miss a great deal of pleasure.

Power (Feb. 2, 1912) contains the following:

Stephen M. Hall, Massachusetts Institute of Technology, class 1900, formerly with the Garwood Electric Co., has associated himself with the Consolidated Stop Co., Thirty-eighth St. and Ninth Ave., New York, as general sales engineer.

Electrical Merchandise and Selling Electricity in a recent number has this to say about W. R. Collier:

Mr. Wm. Rawson Collier has been appointed contract agent for the newly organized Georgia Railway and Power Co., which is to control practically all the water power in the north and northeastern section of the state. The new corporation has leased the properties of the Georgia Railway and Electric Co., of Atlanta, Mr. Collier's old company, for a term of 999 years. Mr. Collier will be in charge of commercial development of the new company, and will have in his charge a territory of about 200 miles square.

Gibbs came East late in August for an extended vacation. He

looks well and reports an interesting existence in Oklahoma. It will be of interest to the members to know that he preached twice at Trinity Church, Boston, during September, and those who heard him were gratified at his progress.—Graff took part in the summer encampment of the M. V. M. Battery A, at Sandwich, Mass.—Dick Westcoat is also in the militia, and according to the latest advices, on October 4 the first battalion C A C, to which he is attached as an officer, acted as escort to Governor Foss at Brockton when his excellency attended the fair. Dick is also writing a book on tactics, which will probably be handed out to the Tech freshmen of coming generations as a guide to their military growth.—Hopkins is now located at Pittsburgh, Pa., as district sales manager for the Alberger Pump and Condenser Company. His address is, Farmers Bank Building, Pittsburgh, Pa. Hopkins, recently wrote the secretary as follows:

I notice in the latest TECHNOLOGY REVIEW that "1900" is last in the list of contributors to the Alumni Fund. Don't you think it was a mistake to send out a letter asking the men to contribute not less than \$500 a year? I don't think there are very many men in the class that could be expected to give up anywhere near that amount. I rather think the effect of the letter was to scare the fellows out from contributing at all; that is the way it struck me. I had my card made out when the letter came, and I thought if that were the scale on which the subscriptions were to be based, I might as well stay out altogether. I held out my card until I had visited the Technology Club in New York, and found that the average of twelve subscriptions which were posted at that time was less than \$100 each, or less than \$20 per year. I then went ahead and sent in my card.

Since moving out here I have talked to several of the boys about the matter, and they all seem to be of about the same opinion. Furthermore, none of them seem to understand that the number of the subscriptions is just as much a credit to the class as the size of the subscriptions.

It seems to me that if a letter or postal were sent to the class explaining that a small subscription would help the standing of the class materially, the fellows would send in something, and I would not be a bit surprised if some of them would make it the \$24 per year that the committee expects of us.

I am travelling around the western end of Pennsylvania and Ohio considerably, and if there is any help I can give, I would be glad to give it.

In order to make this letter a little clearer the following correspondence is given as a matter of interest:

N. J. Neall to R. M. Hopkins, Aug. 29, 1912;

I can scarcely indicate the extent of my surprise upon reading yours of August 20, as I never thought it possible that the class circular sent out under date of July 12 would lead to any such conclusions as you voice. I am glad, however, that you have written, for it is much more satisfactory to have some response, for this tells one where he stands. Furthermore, it gives me the opportunity to come back at you in order to make a few explanations.

First of all, I think you entirely misunderstand the purpose of the circular, for there is no place where we ask or even state our desires in such a way that the men would expect to contribute \$500 a year.

If you will refer to the fourth paragraph you will find that notwithstanding a typographical error in the fourth line, the intent as shown by the context is so clearly to secure a contribution from each man for as much as seven-tenths of one per cent. of his estimated annual income in 1912, that were one to accept your figure of \$500 per year the conclusion would be that you were making approximately

\$71,500 per year. I hope this is so but I judge from your letter that I may possibly be mistaken.

This particular part of the circular was written with great care and I think that if you will reread it you will see that we do not ask an exorbitant amount from any one man. Furthermore, the last sentence of the last paragraph on page 3 very carefully states the range of the contributions which we have so far received, and there can be no misunderstanding that the number of men responding is just as valuable as the amount they contribute.

I am always glad to receive criticisms and I think your suggestion that we send out a notice explaining that a small subscription would help the standing of the class materially would be helpful. At the present time, however, I think it best to let this matter simmer, as there is another side of the case which is of considerable interest and on which I am working. It is this—Leonard offers to subscribe \$1000, i.e., \$200 per annum for five years, provided five other men of the class will do likewise. I have no doubt that there are five other men who are able and interested to do this, once Leonard's proposal becomes known. I propose to write to some of the men whom I think could qualify in this connection, but not feeling certain that I know all of them, and assuming from your letter that you could perhaps indicate some of the men who would do this I should feel much obliged if you could suggest several names to whom this matter could be presented. I might add that I consider Leonard's subscription very liberal, and much above any ordinary subscription which we could expect.

The circumstance also indicates one of the reasons why our standing in the class list is low, as neither Leonard nor some of the other men who are willing to give liberally wish to do this before the class at large had a chance to show its interest. Some of the other classes at Tech have secured a better position by getting their larger subscriptions first. This seems wrong, as it would lead the men to think that a few fellows in better circumstances would carry the brunt of the subscriptions.

If you can in any way help us in this class contribution, I shall appreciate it greatly. It may be of interest to you to know that subscriptions are coming in constantly and I am loath to believe that our circular has scared the men as much as you might think. On the contrary, I do not see how any one studying this data would fail to have a greater interest in the fund than before.

C. M. Leonard, Sept. 5, 1912:

Note copy of letter from Hopkins dated August 31. I recollect the \$500 request he mentions. It was made up jointly by Chase and myself. Same was intended to mean a total subscription of that amount, or in other words, \$100 per year.

The presentation of the preceding correspondence has not been made with any desire "to put one over" on Hopkins, after the manner of one T. R., but rather to bring out points which the secretary believes are of interest to others also. It would materially help the work of the class committee if we could have more such exhibitions of interest in class welfare, as the committee, having to deal with a more or less unresponsive membership, does not always have a true gauge of the thoughts or arguments of the class as a whole. It will not be a surprise to know that Hopkins' letter has been directly useful in the preparation of the latest letter to the class on the subject of contributions to the Alumni Fund.—W. R. Hurd 2d, took part in the annual tournament of the Massachusetts Trap Shooting Association, held at the United Shoe Machinery traps, Beverly, Sept. 14. Hurd made some creditable records, but unfortunately was not at the head of the list.—On Sept. 28 G. W. Cutting, Jr., was married to Miss Helen Ellms

Warren at St. Mary's Church, Newton Lower Falls. Both Miss Warren and Cutting are of old families of Weston, and it was a matter of interest to know that the bride's ancestors had worshipped in this church since its foundation in 1814. Cutting was attended by his brother as best man, and two of the ushers were Tech 1900 men, L. B. Jennings and N. J. Neall, the latter officially representing his class in this important event of Cutting's life. The secretary feels much honored. After the wedding there was a small reception for the immediate family prior to the departure of Mr. and Mrs. Cutting on their wedding trip to the White Mountains and the East. They will later settle in Weston.—The announcement comes to us of the engagement of Charles A. Newhall of Jamaica Plain to Miss Alice Jones of Rochester, N. Y.

H. D. Jouett writes:

I spent my vacation very pleasantly at Intervale, N. H., with some Boston and New York friends. Golf and tennis were the principal diversions, with an occasional fishing trip (no fish however—not even a bite) and a mountain climb. Had no exciting or interesting incidents. I am very much pleased to announce the arrival of Jane Katharine Jouett on July 21, 1912. Still plugging away at the same job and have put in the busiest year since I left college. Am hoping for a little respite now. Don't see many 1900 men, and missed a call from Suter a few weeks ago. Have seen a good deal of Tuck lately.

Also, we hear from John M. Perkins as follows:

Since I have seen you I have travelled over the country from Boston to St. Louis and Detroit and back again, and I am now located in Torrington with the Turner & Seymour Mfg. Co. We have a large gray iron, brass and aluminum foundry supplying castings for our own purposes and many outside firms. My family and myself enjoyed a very pleasant three weeks on Mt. Desert, Maine, this summer, spending most of our time walking, playing tennis and driving. We had the good fortune to have in our party Dr. Burton and his family, president of Smith College, and Professor Pierce and wife of Harvard University. Mr. Pierce, as you know, is one of our finest experts in wireless telegraphy. Mr. and Mrs. Geo. F. Arnold of Brookline were also among our friends. We made up a very congenial party and had a most delightful time. I may be in Boston within the next few weeks, and if I have time will be very glad to have the pleasure of seeing you.

The secretary recently mailed 24 notices to various men in the class, reading as follows:

Manuscript for the fall issue of the TECHNOLOGY REVIEW must be in along about the first of next month (Oct.). I shall be pleased to have some news of yourself, particularly as to your vacation this summer, or any other items of interest which you may care to relate.

—After two weeks' time absolutely no reply has been received. Can this be modesty?—The following address changes have taken place since our last letter:—Paul A. Babcock, 37 Bryant Ave., E. Milton, Mass.—Miss Jane H. Bartlett, 811 Vermont Ave., Washington, D. C.—Charles C. Griggs, Jr., White Salmon, Washington—Mrs. Lawrence R. Brooks, 22 Amackassin Terrace, Yonkers, N. Y.—M. E. Brooks, care Kettle Valley Ry., Penticton, B. C.—Miles E. Brooks, Kettle Valley Ry., Princeton, B. C.—

John Brown, Santo Domingo, care Moor & Co.—F. D. Buffum, Ellsworth Wash Co., Pa.—Arthur F. Buys, 311 Madison Ave., New York, N. Y.—Edgar B. Cahn, 15 William St., New York, N. Y.—Llewellyn L. Cayvan, 199 Giles Ave., Grand Rapids, Mich.—John E. Chapin, 506 Park Ave., St. Louis, Mo.—Walter N. Charles, 90 Centre St., Dorchester, Mass.—Burton S. Clark, 75 Pratt St., Hartford, Conn.—William C. Clarke, Jr., Rhode Island Co., Wakefield, R. I.—Robert Clary, 701 Sutter St., San Francisco, Cal.—Percival Clow, 193 Woodward Ave., Buffalo, N. Y.—Frederick H. Cooke, Culebra, Canal Zone.—Charles B. Cotting, 50 Congress St., Boston, Mass.—Paul H. Delano, Pressed Radiator Co. of America, 130 Milk St., Boston, Mass.—Carleton Ellis, 92 Greenwood Ave., Montclair, N. J.—George W. Emery, 60 Oliver St., Malden, Mass.—Lewis Emery, Emery Mfg. Co., Bradford, Pa.—D. Howard Evans, 1428 Land Title Bldg., Philadelphia, Pa.—Herbert M. Flanders, 93 Park St., Springfield, Mass.—Frederic E. Foye, Westdale, Mass.—Stephen F. Gardner, Woodward Bldg., Washington, D. C.—A. L. Hamilton, 318 No. Kenilworth Ave., Oak Park, Ill.—Ralph Hamlin, 416 So. 5th St., Minneapolis, Minn.—Harry M. Harps, 283 Ross St., Portland, Ore.—Joseph A. Hayden, Dewar House, 11 Haymarket, S. W., London, England.—James C. Heckman, 196 Soldiers Place, Buffalo, N. Y.—John M. Higgins, 298 Highland Ave., West Somerville, Mass.—R. M. Hopkins, Farmers Bank Bldg., Pittsburg, Pa.—Charles H. Hughes, 32 Beaver St., New York, N. Y.—Willard Jackson, 231 Main St., Brockton, Mass.—Walter U. Jennings, The Roycrofters, E. Aurora, N. Y.—Henry D. Jouett, Rm. 5626, Grand Central Terminal, New York, N. Y.—William B. Laine, 44 Morningside Drive, New York, N. Y.—John H. Larabee, Mills Bldg., Rm. 310, Washington, D. C.—Lewis M. Lawrence, 76 Lake Ave., Melrose, Mass.—George H. Leach, care Geo. E. Keith Co., Campello, Mass.—Robert H. Leach, 58 Main St., Brockton, Mass.—John F. Lewis, American Steel & Wire Co., Donora, Pa.—Frederick W. Magdenburg, Melrose Highlands, Mass.—H. B. Mayhew, U. S. S. Eagle, care Postmaster, New York, N. Y.—Daniel E. Maxfield, 6 W. Oak Ave., Moorestown, N. J.—William R. McAusland, *Daily News*, Chicago, Ill.—James W. McIntosh, general contractors, Holden, Mass.—Joseph T. Maguire, 1483 Newton St., Washington, D. C.—Paul J. Ober, 89 Forest St., Newton Highlands, Mass.—Harry E. Osgood, care J. Bancroft & Sons, 2208 Shallcross Ave., Wilmington, Del.—Thomas D. Perry, 16 Richard Terrace, Grand Rapids, Mich.—Thos. D. Perry, R. R. 7, Grand Rapids, Mich.—Greenleaf W. Pickard, Amesbury, Mass.—William P. Rand, 519 W. 147th St., New York, N. Y.—Walcott Remington, 811 Washington St., Brookline, Mass.—Miss Eliza M. Richardson, Girls High School, Boston, Mass.—Edward F. Russell, 146 Fletcher St., Lowell, Mass.—Warren W. Sanders, chemistry department, Goodyear

Tire & Rubber Co., Akron, Ohio.—William C. Saunders, Title & Trust Co., Lewis Bldg., Portland, Ore.—Harry T. Shapley, 34 Garrison Rd., Brookline, Mass.—Brackley A. Shaw, Richelieu Village, Quebec, Canada.—Louis W. Shumaker, 135 East 16th St., New York, N. Y.—James P. Sprague, 2505 Linwood Blvd., Kansas City, Mo.—Albert P. Stock, 3666 Cleveland Ave., St. Louis, Mo.—Charles H. Stratton, Pana, Ill.—Miss Johannah C. Swinson, 31 Westerly St., Wellesley, Mass.—Frank R. Walker, Walker & Weeks, 1900 Euclid Ave., Cleveland, Ohio.—Harry L. Walker, Bronxville, New York.—William H. Wedlock, Dep't of Public Works, U. S. Navy Yard, Charlestown, Mass.—Irving C. Weeks, Ricker Classical Inst., Houlton, Me.—L. Webster Wickes, 614 So. Grand Ave., Los Angeles, Cal.—Fred B. Wilder, 1033 7th St., Douglas, Ariz.—Mrs. Alpheus G. Woodman, 367 School St., Watertown, Mass.—Edward S. Worden, N. Y. Tel. Co., 15 Dey St., New York, N. Y.—William Wyman, 175 Patent Office, Washington, D. C.

1901.

ROBERT L. WILLIAMS, *Sec.*, 12 Lake Street, Brighton, Mass.

Howard T. Chandler is assistant superintendent of Walter Baker and Co., chocolate manufacturers. He has been a member of the advisory committee of the Boston School Committee.—W. Fred Davidson has recently entered the employ of the Knox Pressed & Welded Steel Co., Niles, Ohio, as their chief engineer.—Albert F. Sulzer since 1905 has been superintendent of the Chemical Plant, Kodak Park Works, Eastman Kodak Co.—E. S. Foljambe is managing editor of *Cycle and Automobile Trade Journal*, Philadelphia, Pa. He is married and has four children.—George M. Spear has been with the engineering department of Cramps shipyard ever since graduation.—George T. Wilson for six years has been connected with Warren Bros. Co., Boston, contractors.—Frank D. Rash as vice-president and general manager of the St. Bernard Mining Co. is in charge of the mining operations of the company. He has had the honor of being mayor of Earlington, Ky.—Theodore H. Taft has been made assistant professor of mechanical engineering at M. I. T. and has charge of instruction in the engineering laboratories.—Since 1910 Harry E. Dart has been associated with Ford, Buck and Sheldon, Inc., consulting engineers, Hartford, Conn.—Philip A. Potter is assistant engineer with Nicholas S. Hill, Jr., consulting hydraulic engineer, New York City.—Norman A. Dubois since 1911 has been dean and professor of chemistry of the School of Pharmacy of Western Reserve University, Cleveland, Ohio.—C. J. Bacon is engaged in tests and special investigations as steam engineer for the Illinois Steel Co., Chicago. He has written a paper for the Illinois Gas Association on "Some Methods of Coke Dust Disposal."—

Charles M. Culp is clerk to the National Bank Examiner for the district of Northern Washington.—Ralph Whitman is lieutenant and assistant civil engineer in the U. S. Navy. His present duty is at the public works office, Naval Station, Guantanamo, where he has charge of the up-keep of the present structures and of \$500,000 of new construction.—Solon J. Stone for the past year has been chief engineer and first assistant to the vice-president of the Lackawanna Bridge Co., New York.—Harold B. Wood writes he is rather proud to call himself the golf champion of the Hudson River.—Langdon Pearse as division engineer of the sanitary district of Chicago is in charge of sewage disposal investigations, sewer work, laboratory, etc.—Edwin F. Church, Jr., is professor of machine design and construction, College of Engineering of West Virginia University.

—From the *Baltimore Sun* we learn that William G. Sucro was appointed last summer to the position of roads engineer for Baltimore county, at a salary of \$3,000 a year and was considered the best-indorsed candidate for the office. In addition to this office, Sucro "will in all probability be elected chief engineer of the Baltimore County Roads Commission, which will spend \$1,500,000, for road improvements in the county." Sucro first entered the employ of Bartlett-Hayward Company. Later he went to North Carolina as engineer for the Southern Railway. He designed and superintended the construction of an electric lighting system, waterworks and sewer system at Elizabeth City, N. C. About seven years ago he returned to Baltimore and has been with the Commissioners for Opening Streets ever since.

The following address changes have been recently received: Matthew C. Brush, 101 Milk St., Boston, Mass.—George A. Clark, Box 291, Lawton, Okla.—A. C. Dart, Rock Island, Ill.—Norman A. Dubois, School of Pharmacy, Western Reserve University, Cleveland, Ohio.—F. D. B. Ingalls, care C. A. Dunham Co., Marshalltown, Iowa.—Thomas H. H. Knight, Girls High School, Boston.—A. B. McDaniel, care Dr. L. W. Fowler, R. F. D. No. 1, Box 14, Canton, Mass.—Albert F. Sulzer, 16 Beverly St., Rochester, N. Y.—Fred B. Webster, City Engineer's Office, Seattle, Wash.

1902.

F. H. HUNTER, *Sec.*, 281 Park Street, West Roxbury, Mass.
J. ALBERT ROBINSON, *Asst. Sec.*, 87 Milk Street, Boston, Mass.

The first gathering of the class for the season will be a dinner held at the Boston City Club on election night, when returns will be received. Plans are also under way for a bowling party a few weeks later, so that all classmates may be in shape for the match with '05 later on.

The class book is progressing and should be out soon after this

issue of the REVIEW, hence only the most important items of news are here given.—Hamblet is now in the Boston office of Jasper Whiting, 89 State St., Boston. His work for Mr. Whiting at Rumford, Maine, having been completed.—Wemyss has returned to the East, and has successfully staved off the attack of tuberculosis that drove him to Arizona. The secretary can vouch for "Dunc's" being the picture of health since his recovery.—Pendergast, who severed his connection with Stone & Webster last summer, has entered the School of Business Administration at Harvard to take graduate work in economics and management of electric railways. We herewith stake a claim for '02 as the first class from Tech to have a Harvard student for class president.

"Pendy's" address is, as before, 48 Beacon St., Boston.—The following letter has been received from Wade L. Wetmore:—

I am now with the Granby Co. at Anyox, B. C. I reached Anyox on August 25, passing through San Francisco and Seattle on the way. The Granby Co. have 400 men at work here on preliminary work such as grading, clearing land, and railroad construction. We are pretty far north, being 110 miles from Prince Rupert and about 15 miles from the Alaskan Boundary Line.

—At the recent Atlantic Conference of delegates from the principal yacht clubs, which was held at the New York Yacht Club, Oct. 11, for the purpose of amending the measurement and racing rules, Prof. H. A. Everett of the department of naval architecture and marine engineering attended as a delegate of the Eastern Yacht Club and was appointed a member of the committee to draw up Instructions for Measurers in accordance with the revised rules.

1903.

MYRON H. CLARK, *Sec.*, 43 Glen Rock Circle, Malden, Mass.

R. H. NUTTER, *Asst. Sec.*, Lynn, Mass.

King (R. J.) has gone with Thomas J. Edison, Inc., East Orange, New Jersey.—Ralph Nutter, whose marriage was referred to in the last number of the REVIEW, has moved into his new house at Beach Bluff, Mass. Ralph was faithful to '03 as usual and employed Jackson '03 as architect.—The engagement of Raymond E. Hanson to Miss Marion E. Walsh, of Reading, Mass. has been announced. Miss Walsh is a graduate of Vassar College, 1911, where she was a member of Phi Beta Kappa; the Glee Club; T. and M. and other societies.

1905.

GROSVENOR D'W. MARCY, *Sec.*, 246 Summer Street, Boston, Mass.

William Fuller Smart and Miss Margaret Strachan of Lewiston, Me., were married on August 29. They will be at home after October 15 at 332 Main Street, Lewiston.—The engagement of Gilbert S. Tower, to Miss Elizabeth Osgood Collier of Cohasset



'02 REUNION, JUNE, 1912
Party at Princeton Inn



'02 REUNION, JUNE, 1912
On top of Mt. Wachusett (Thanks to Whitney, they got there)



'02 REUNION, JUNE, 1912
Down the Harbor



'02 REUNION, JUNE, 1912
After the dinner at Nahant

has been announced.—Also the engagement of Andrew Fisher, Jr., to Miss Frances D. Way of Roxbury; and that of George M. Bartlett to Miss Lucy Caroline Loveys of Somerville. Andy Fisher has left the Amoskeag Mfg. Co. and is now associated with J. Russell Marble, of Boston and Worcester, selling starches, gums, oils, chemicals, etc.—Piggy Bartlett has left the Government Food Inspection Service to take the position of chemist with Joseph Campbell & Co., of Camden, N. J.—Dr. John F. Dowsley of 45 Winthrop Street, Roxbury, announces the engagement of his daughter, Katherine Sydney, to Louis J. Killion.—Fred Goldthwait announces the birth of a daughter, Margorie, on July 23, weighing eight and a half pounds. Fred has changed his business address to 19 Pearl Street, Boston, and has taken on one or two new lines, now representing Morris Machine Works, centrifugal pumps, Diamond Power Specialty Company, soot blowers, Betson Plastic Firebrick Company, and the Phoenix Iron Works Company, makers of engines, boilers, etc.—W. N. MacBriar has been with the Pacific Coast Condensed Milk Company, and was made chief engineer of the company last February. His address is 936 Henry Building, Seattle, and he likes the country and the work immensely.—Leonard W. Cronkhite read a paper before the meeting of the National Association of Cotton Manufacturers entitled "Equipment and Tests for Uniform Sizing."—Chester A. Butman has read two papers during the year before the American Physical Society on Phosphorescence. One of the papers, entitled "The Photoelectric Effect of Phosphorescent Material" appeared in full in the *American Journal of Science* for August. The other paper outlined a new theory of phosphorescence. Butman, who is connected with the department of physics of the Massachusetts Agricultural College at Amherst, has been doing quite a little research work at the Sloane Physical Laboratory of Yale University, and among other things has discovered two new photoelectric properties of sulphur.—Roy Allen wrote July 29 that things had quieted down enough in Mexico so that he was on his way back to his mine, after spending six enjoyable weeks in camp on Vancouver Island with Charlie Clapp, where he put on fifteen pounds of good solid flesh. He stopped off and saw Bushnell in Seattle, and Lombard in San Francisco.—Chester Allen is in the civil engineering department, State College, Pa.—Edward C. Smith reports a new address at 18 Constance Street, Toronto.—Robert W. Morse is an examiner in the Patent Office at Washington.—W. W. Ammen's address is now Rockefeller Building, Cleveland, Ohio.—Warren K. Lewis was made associate professor of chemical engineering at the Institute last June, and not only holds the record for the youngest professor, but also for the most rapid advancement. Professor Walker had a six months' leave of absence last year, during which time Lewis took his place.—Sammy Seaver sends regards from Butte, Mont., to everybody

and says he sees Charlie Johnston once in a while, who is with the Raven Mining Company, and also Ralph Hayden and Jimmie Root of the Anaconda.—Raymond E. Bell is reported as having been found at 203 West 117th Street, New York.—Wakefield, Mass., has a new manager for its gas and electric plants. Sidney L. Cole has resigned his position under George F. Goodnow of Chicago, for whom he has served in various capacities from gas-maker to manager at Waukegan, Ill., and Little Rock, Ark., to accept this offer from Wakefield. He is now in charge.—The secretary got off for a few days with Bill Spalding and Billy Ball at Conway, N. H., during early October. We climbed all the hills in sight and had a joyful reunion. Spalding reports progress in his work of installing scientific management methods, but states that it is necessarily slow work. Our standing on the Alumni Fund is not up to '05 standards, and it is hoped that everyone who has not already done so will respond during the fall.

1906.

RALPH R. PATCH, *Sec.*, 15 Lincoln Street, Stoneham, Mass.

William Couper, who is now connected with the Pennsylvania railroad of New York, was married Wednesday, October 9, to Miss Eloise Hirst of Purcellville, Va. Mr. and Mrs. Couper will live at Richmond Hill, a suburb of New York City.

1907.

BRYANT NICHOLS, *Sec.*, 10 Grand View Road, Chelsea, Mass.
HAROLD S. WONSON, *Asst. Sec.*, 149 East Main Street, Gloucester, Mass.

I. Message from the Secretaries

Ever since last June the secretaries have been at work preparing the material for the five-year class-book, which we hope to publish this fall. Among other things this book will contain a history of each member of the class since June, 1907, and it is this portion that is taking the time. We want to have the statements regarding each man correct, and so we have had to write to nearly the entire membership in order to make sure that our information is accurate. As soon as possible we will get a quotation from a printer on the cost of the book, and then we shall mail subscription cards to every man. We cannot urge you too strongly to help by replying promptly when this card does come to you. Inasmuch as the book will appear before long, we will not give any of the letters which we have in this number of the REVIEW, but will simply publish the following:

II. List of Members, Addresses and Occupations

F. O. Adams, 195 Steiner Bank Bldg., Birmingham, Ala., architect.—P. L. Adams, 441 16th St., Portland, Ore., statistics dept. of Portland Railway, Light and Power Co.—R. C. Albro 23 Hall Ave., Nashua, N. H., assistant superintendent of Lake Factory of W. H. McElwain Co. at Manchester, N. H.—C. E. Allen, care H. H. Brown Co., shoe manufacturers, North Brookfield, Mass.—Lawrence Allen, 67 Webster St., West Newton, Mass., manager of cost dept., W. H. McElwain Co., Boston, Mass.—L. L. Allen, 16 High St., Brookline, Mass., clerk of Brookline School Committee.—E. S. Altgelt, Box 902, San Antonio, Texas, civil engineer.—J. P. Alvey, Jr., 105 South La Salle St., Chicago, Ill., engineer with the Arnold Co.—H. B. Alvord, 2 Page St., Brunswick, Me., assistant professor of surveying and drawing, Bowdoin College.—F. W. Amadon, 36 Maple St., New Haven, Conn., assistant engineer with New York, New Haven & Hartford R. R.—A. B. Arnold, 628 Summit Ave., Westfield, N. J., with the American Agricultural Chemical Co.—R. C. Ashenden, 55 Brookside Ave., Newtonville, Mass., assistant roadmaster, Boston & Albany R. R.—Frederick Bachmann, 18 Halstead Place, East Orange, N. J., legal department of Thos. A. Edison and the Edison companies.—C. E. Baker, Jr., 47 Elm St., Melrose, Mass., superintendent with the Eastern Dredging Co. of Boston.—C. F. Baker, address not known. If any reader knows about Baker, please write the '07 secretary.—H. P. Baker, White Haven, Pa., with Power Dept., Coney Island & Brooklyn R. R.—J. M. Baker, 27 Clinton St., Watertown, N. Y., business not known.—A. F. Bancroft, 43 Banks Road, Swampscott, Mass., service and cost manager for Goller Groves Shoe Co., Lynn, Mass.—F. E. Banfield, 17 Woodward St., Newton Highlands, Mass., asst. supt. with Saco-Pettee Co. of Newton Upper Falls.—C. C. Barker, 1361 Osgood St., North Andover, Mass., assistant to county engineer of Essex County, Mass.—J. M. Barker, 20 Oxford St., Pittsfield, Mass., business not known.—J. G. Barry, care R. S. Conrad, 571 Bullitt Bldg., Philadelphia, Pa., geologist.—C. W. Beam, 139 Winslow St., Watertown, N. Y., maintenance of way dept., New York Central & Hudson River R. R.—C. A. Bettington, Junior United Service Club, London, S. W., England, inventor and traveler.—W. W. Bigelow, care J. R. Worcester, 79 Milk St., Boston, Mass., structural engineer.—Rutherford Bingham, U. S. Legation, Quito, Ecuador, South America, secretary of legation.—A. S. Black, 341 Union St., Lynn, Mass., real estate and insurance.—E. D. Boles, 84 State St., Boston, Mass., with General Electric Co.—E. W. Bonta, 615 Gurney Bldg., Syracuse, N. Y., in business for himself, architect.—C. A. Bowen, 94 Canton St., Lowell, Mass., with John A. Stevens, mechanical engineer.—J. C. Bradley, chemist, Amer-

ican Brass Co., Waterbury, Conn.—W. H. Bradshaw, 1329 Pacific St., Brooklyn, N. Y., supt. Eastern Reclaimed Rubber Co.—C. R. Bragdon, 1219 Maple Ave., Evanston, Ill., with R. A. Worstall, paint and varnish specialist.—Carl Brewer, Ironwood Mich., mining engineer.—L. W. Brock, 59 Temple Place, Boston, Mass., secretary of the Pneuvac Co., manufacturers of vacuum cleaners.—G. H. Bryant, 4 Lincoln St., Haverhill, Mass., business not known.—H. N. Burhans, 227 McLennan Ave., Syracuse, N. Y., wholesale hardware dealer.—A. L. Burwell, Huntington Park, Los Angeles, Cal., with a tanning concern.—C. M. Butler, 10 Grant Ave., Glens Falls, N. Y., chemist with Glens Falls Portland Cement Co.—W. B. Cain, care Wm. Cramp & Son, Philadelphia, Pa.—B. F. Carter, supt. of operation, Telluride Power Co., Ames, Colo.—A. H. Cenedella, 68 School St., Milford, Mass., business not known.—J. P. Chadwick, agent Miami Copper Co., Cananea, Sonora, Mexico.—E. L. Chaffee, 109 Pearl St., Somerville, Mass., instructor in electrical engineering, instructor in physics, Jefferson Physical Laboratory, Harvard University, Cambridge, Mass.—H. R. Chase, 54 Miller Ave., Providence, R. I., structural engineer with J. H. Tower Iron Works.—K. G. Chipman, Geological Survey, Ottawa, Canada.—A. O. Christensen, Franklin Furnace, N. J., mining engineer.—C. W. Coffin, 80 Clinton St., Jamaica, Long Island, N. Y., business not known.—W. B. Coffin, 40 Oakland Road, Brookline, Mass., with R. Clipston Sturgis, architect.—P. J. Colvin, 52 Jackson St., Worcester, Mass., iron foundry.—R. F. Conron, care Thos. Conron Hardware Co., 116 East Main St., Danville, Ill.—J. A. Correll, instructor in electrical engineering, University of Texas, Austin, Tex.—J. S. Coupal, 821 East 4th St., South Boston, Mass., mining engineer.—E. R. Cowen, 4419 Racine Ave., Chicago, Ill., construction engineer with Ferro Concrete Construction Co.—G. A. Crane, building estimator, care Thompson-Starrett Co., Fisher Bldg., Chicago, Ill.—H. R. Crohurst, 2 Clinton St., Cambridge, Mass., assistant engineer with Massachusetts State Board of Health.—R. H. Crosby, Isthmian Canal Commission, Box 218, Wheeling, West Va., inspector.—A. R. Cullimore, 2252 Putnam St., Toledo, Ohio, professor of civil engineering, Toledo University.—P. L. Cumings, 225 Fifth Ave., New York City, architect.—C. M. Curl, Tilton, N. H., business not known.—L. H. Cutten, Box 559, Daytona, Fla., heating contractor.—L. D. Davenport, Monroe Mine, Chisholm, Minn., mining engineer.—J. H. Davis, Bureau of Mines, Washington, D. C.—L. R. Davis, Apt. 16, San Geronimo, Oaxaca, Mexico, mining engineer.—C. S. Dean, 39th St., Riverview, Norfolk, Va., mechanical draftsman.—F. G. Dempwolf, 701 South George St., York, Pa., architect.—C. R. Denmark, engineer in charge, National Museum and Smithsonian Institution, Washington, D. C.—L. A. Dickin-son, map draftsman, Automobile Club of America, 54th St.,

New York City.—V. H. Dickson, Peoria Metal Culvert Co., Peoria, Ill.—P. V. Dodge, patent attorney, 724 Ninth St., Washington, D. C.—A. H. Donnewald, care American Institute of Mining Engineers, 29 West 39th St., New York City.—C. N. Draper, 1860 Columbia Road, Washington, D. C., chemist, U. S. Dept. of Agriculture.—H. R. Draper, Box 176, Ayer, Mass., with Boston Transit Commission, Boston.—H. S. Duncan, Box 815, Globe, Ariz., with Dominion Copper Mining and Smelting Co.—K. W. Dyer, Cromwell, Conn., manufacturer of gas engines.—C. A. Eaton, Fort Hancock, N. J., second lieutenant, U. S. A.—S. J. Egan, office of Superintending Naval Constructor, N. Y. Shipbuilding Co., Camden, N. J.—M. H. Eisenhart, 508 Oxford St., Rochester, N. Y., asst. supt. of chemical plant, Eastman Kodak Co.—F. C. Elder, care American Steel and Wire Co., Worcester, Mass.—S. G. Emilio, Dee, Ore., business not known.—E. C. Evans, 57 Bayswater St., East Boston, Mass., with American Steel and Wire Co., Worcester.—John Evans, 400 East 8th Ave., Denver, Colo., chief engineer, Denver City Tramway Co.—Charles Everett, 42 Parker St., Newton Center, Mass., architect.—O. G. Fales, care Gregg Co., Ltd., Hackensack, N. J.—J. T. Fallon, Jr., 80 Washington Square East, New York City, architect.—H. P. Farrington, care Viele, Blackwell & Buck, consulting engineers, 49 Wall St., New York.—C. S. Fleming, Jr., 3119 Landis St., Sheridanville, Pittsburg, Pa., with Proctor & Gamble Co., soap manufacturers.—H. L. Fletcher, Edison Electric Illuminating Co., 39 Boylston St., Boston, Mass.—H. A. Frame, Lake Superior Iron and Steel Co., Ltd., Sault Ste. Marie, Ontario, Canada.—J. M. Frank, vice-president and sales manager of Ilg Electric Ventilating Co., Chicago.—L. A. Freedman, 135 West 86th St. New York City, engineer with Viele, Blackwell & Buck.—R. D. Gale, 11 Gould St., Wakefield, Mass., with Sanford Mills, manufacturers of artificial leather.—R. F. Gale, 5031 Knox St., Germantown, Pa., electrical engineer, Midvale Steel Co.—J. E. Garratt, Box 54, Hartford, Conn., with Hartford Board of Water Commissioners.—W. A. Gates, 701 Majestic Bldg., Oklahoma City, Okla., architect.—J. M. Gaylord, 605 Federal Bldg., Los Angeles, Cal., engineer, U. S. Reclamation Service.—S. C. Godfrey, Fort Leavenworth, Kan., lieutenant, U. S. A.—W. B. Gonder, The Mindoro Co., San Jose, Mindoro, P. I., sugar expert.—F. E. Goodnow, Box 33, Evanston, Ill., division chief operator, Public Service Company of Northern Illinois.—G. S. Gould, 1206 Boylston St., Newton Upper Falls, Mass., construction dept., Boston Consolidated Gas Co.—A. E. Greene, 1445 Monadnock Bldg., Chicago, Ill., metallurgical expert.—P. P. Greenwood, Box 218, Wheeling, W. Va., inspector with Isthmian Canal Commission.—G. A. Griffin, 151 Waller Ave., White Plains, N. Y., assistant engineer, New York City Board of Water Supply.—W. I. Griffin, 13 West St., Utica, N. Y., wholesale grocer.—

B. C. Gupta, Srinagar, Kashmir, India, electrical and mechanical engineer of large silk mill.—H. R. Hall, 6 East Franklin St., Baltimore, Md., assistant engineer, Maryland Bureau of Sanitary Engineering.—R. N. Hall, 409 West Elm St., Brockton, Mass., with United Shoe Machinery Co.—S. B. Hall, 33 Broad St., Boston, Mass., consulting forester.—L. F. Hallett, Wellesley Farms, Mass., business not known.—F. S. Hamilton, 1009 Commerce Bldg., Kansas City, Mo., real estate business.—L. C. Hampton, 5455 Sunset Boulevard, Los Angeles, Cal.—J. W. G. Hanford, E. 1913 Providence Ave., Spokane, Wash., civil engineer.—A. E. Hartwell, 1209 Webster Ave., Houston, Tex., operating a foundry and machine shop.—H. B. Hastings, 526 20th St., Portland, Ore., professor of civil engineering and also superintendent of grounds and buildings, Reed College in Portland.—Warren Hastings, Franklin Furnace, N. J., assistant mine and quarry foreman, New Jersey Zinc Co.—J. P. Hinckley, 231 West 39th St., New York City, salesman for L. E. Knott Apparatus Co., dealers in laboratory supplies.—W. T. Hoover, 6 Beacon St., Boston, Mass., New England agent for several paint manufacturing companies.—R. G. Hosea, 816 Boston Bldg., Denver, Colo., engineer with Colorado Fuel and Iron Co.—H. B. Hosmer, "Hollowdene," Billerica, Mass., farmer.—C. D. Howe, 43 Stearns St., Waltham, Mass., professor of civil engineering, Dalhousie University, Halifax, Nova Scotia.—R. G. Hudson, M. I. T., Boston, Mass., instructor in electrical engineering.—A. W. Hull, 130 34th St., Newport News, Va., with Newport News Shipbuilding and Dry Dock Co.—C. M. Hutchins, 42 Pacific St., Rockland, Mass., supt. of Rockland factory of Rice & Hutchins, shoe manufacturers.—F. C. Jaccard, Box 205, McGill, Nev. (permanent address, 2914 Campbell St., Kansas City, Mo.), assistant superintendent, Steptoe Valley Smelting and Mining Co.—E. W. James, 61 South Highland Ave., Ossining, N. Y., chief inspecting highway engineer of the U. S. Office of Public Roads.—B. D. Johnson, 419 6th St., N. W., Washington, D. C., assistant chemist, U. S. Dept. of Agriculture.—A. R. Jealous, 101 Franklin St., Lawrence, Mass., assistant electrical engineer, American Woolen Co.—J. F. Johnston, 175 Kempton Ave., Oakland, Cal., structural engineer.—G. R. Jones, professor of sanitary and municipal engineering, Kansas University, Lawrence, Kans., also engineer for the Kansas State Board of Health.—R. G. Kann, Alexandria, Ind., superintendent and secretary Penn-American Plate Glass Co.—W. I. Keeler, 364 Manhattan Ave., Brooklyn, N. Y., industrial chemist.—T. C. Keeling, Baton Rouge Electric Co., Baton Rouge, La.—E. F. Kelly, care Edison Co., 65 Duane St., New York City.—A. S. Kendall, 2 Bedford Court, Newton Center, Mass., architect.—P. F. Kennedy, 01129 Hamilton St., Spokane, Wash., in charge of bridges, city engineer's office, city of Spokane.—S. A. Kephart, captain U. S. A.,

Fort Moultrie, Moultrieville, S. C.—R. E. Keyes, 13 Park Row, New York City, eastern manager, Ilg Electric Ventilating Co.—John Kimball, Easton, Mass., designer, Stone & Webster Engineering Corporation.—W. F. Kimball, 201 Devonshire St., Boston, Mass., assistant electrical engineer, Chas. H. Tenney & Co.—H. A. Kingsbury, New Departure Mfg. Co., Bristol, Conn., assistant patent counsel.—J. C. Kinnear, Steptoe Valley Smelting and Mining Co., McGill, Nev.—R. F. Knight, 217 Bassett St., New Britain, Conn., with Corbin Motor Vehicle Corporation.—A. T. Kolatschewsky, Gribsnaia 12, St. Petersburg, Russia, with N. C. Heisler & Co., electrical contractors.—R. H. Kudlich, care Lehigh Coal and Navigation Co., Lansford, Pa., chief draftsman.—A. G. Labbé, treasurer and assistant manager, Willamette Iron and Steel Works, Portland, Ore.—C. R. Lamont, 318 Security Bldg., Los Angeles, Cal., business unknown.—J. H. Leavell, Newhouse Bldg., Salt Lake City, Utah, mining engineer.—E. G. Lee, 30 Highland St., Woodford, Me., engineer with Sawyer & Moulton of Portland, Me.—E. F. Lewis, 148 Holden St., Providence, R. I., architect.—H. M. Lewis, Jr., Fifth East Hotel, Salt Lake City, Utah, mining engineer.—H. C. Libby, 1300 Penn Ave., Washington, D. C., assistant engineer, Southern Railway.—R. W. Lindsay, 410 Bird Ave., Buffalo, N. Y., chemist, Pratt & Lambert, varnish manufacturers.—J. H. Link, Rushville, Ind., business unknown.—D. A. Loomis, 727 State St., Springfield, Mass., with Confectioners' Machinery and Manufacturing Co., Springfield, Mass.—H. D. Loring, 4601 Columbia Road, Madisonville, Ohio, with Ferro Concrete Construction Co.—B. P. Luce, Vineyard Haven, Mass., business unknown.—W. S. Lucey, Canadian Kodak Co., Toronto, Canada.—G. D. Luther, 1424 Wazee St., Denver, Colo., manager Denver office, the Electric Storage Battery Co.—H. J. C. Macdonald, Goose Bay, British Columbia (via Prince Rupert), superintendent Hidden Creek Copper Mine.—F. S. MacGregor, 1218 Foster Bldg., Denver Colo., metallurgist.—M. E. MacGregor, 139 High St., Reading, Mass., junior master at Mechanic Arts High School, Boston.—Alexander Macomber, chief electrical engineer, Chas. H. Tenney & Co., 201 Devonshire St., Boston, Mass.—J. T. Mahar, 92 State St., Boston, with American Agricultural Chemical Co.—H. W. Mahr, 296 Schermerhorn St., Brooklyn, N. Y., business unknown.—A. P. Mansfield, Wakefield, Mass., with General Electric Co., Lynn, Mass.—W. H. Martin, care Power Construction Co., Shelbourne Falls, Mass.—R. A. Martinez, Havana, Cuba, first engineer in charge, paving of city of Havana.—S. A. Marx, 7 West Madison St., Chicago, Ill., architect, firm of Lebenbaum & Marx.—John Mather, lieutenant, U. S. A., Fort Constitution, Portsmouth, N. H.—H. H. McChesney, 1511 East Genesee St., Syracuse, N. Y., of Hall & McChesney, Syracuse.—J. A. McElroy, 307 Golden Hill, Bridgeport, Conn., Division Engineer in

Highway Dept., state of Connecticut.—J. M. McMillin, 455 Kent Ave., Brooklyn, N. Y., sales manager, the Improved Appliance Co., of Brooklyn.—H. C. McRae, Colgate Baltimore County, Md., assistant division engineer, Baltimore Sewerage Commission.—N. A. Middleton, of N. A. Middleton & Co., engineers and general contractors, 515 Continental Bldg., Baltimore.—Addison Miller, 803 Lincoln Ave., St. Paul, Minn., with American Hoist & Derrick Co.—S. R. Miller, 3366 Morrison Ave., Cincinnati, Ohio, purchasing agent, Sam'l C. Tatum Co., office supplies.—B. F. Mills, Albay, Province of Albay, P. I., builder and contractor.—W. D. Milne, Box 246, Tallasee, Ala., civil engineer.—E. A. Miner, 127 Summer St., Malden, Mass., with Boston Elevated Railway Co.—Kenneth Moller, 407 Brook St., Providence, R. I., business unknown.—W. P. Monahan, Box 385, Bakersfield, Cal., civil engineer, with Stone & Webster Engineering Corporation.—H. L. Moody, 43 Mt. Bowdoin Terrace, Dorchester, Mass., sales department Westinghouse Machine Co.—J. E. Moore, Provo, Utah, Telluride Power Co.—J. G. Moore, care Trumbo Dredging Co., West Palm Beach, Fla.—W. S. Moore, 1017 Washington St., Sandusky, Ohio, business unknown.—E. L. Moreland, 84 State St., Boston, with D. C. and W. B. Jackson, engineers.—F. W. Morrill, 56 Fountain St., Haverhill, Mass., with J. R. Worcester Co., consulting engineers.—F. T. Moses, 721 Free Press Bldg., Detroit, Mich., assistant secretary, Firemen's Mutual Insurance Co.—G. A. Murfey, 321 Strong Bldg., Los Angeles, Cal., business unknown.—F. A. Naramore, 812 Marshall St., Portland Ore., architect.—J. S. Nicholl, 170 Summer St., Boston, Mass., with Walter B. Snow, publicity engineer.—Bryant Nichols, 10 Grand View Road, Chelsea, Mass., cost department, Revere Rubber Co.—P. R. Nichols, Prospect St., Reading, Mass., Associated Mutual Fire Insurance companies of Boston.—G. R. Norton, first lieutenant, U. S. A., Rock Island Arsenal, Rock Island, Ill.—E. C. Noyes, Trussed Concrete Steel Co., Detroit, Mich.—E. P. Noyes, 178 Summer St., Newton Center, Mass., inspector, U. S. Navy Yard, Boston.—C. W. Nutter, 3 Sturgis St., Chelsea, Mass., draftsman, Boston & Albany R. R. at Springfield, Mass.—G. W. Otis, 1 Madison Ave., New York City, salesman American Blue Stone Co.—E. H. Packard, 145 Crescent St., Brockton, Mass., wholesale coal, lumber and grain.—W. W. Pagon, 1301 St. Paul St., Baltimore, Md., civil engineer.—R. W. Parlin, Washington County Water Co., Hagerstown, Md.—H. G. Pastoriza, Box 71, Keokuk, Iowa, with Stone & Webster Engineering Corporation on Mississippi River development work.—O. L. Peabody, 65 Winslow St., Norwood, Mass., with Geo. H. Morrill Co., printing ink manufacturers.—M. H. Pease, New Britain, Conn., business unknown.—Eugene Phelps, Meeteetse, Wyoming, rancher.—Allen Pope, 366 Ashland Ave., Buffalo, N. Y., general manager, John W. Dan-

forth Co., heating and ventilating engineers.—E. V. Potter, 157 Walnut St., Somerville, Mass., civil engineer.—O. W. Potter, Jr., Seattle, Port Angeles, and Lake Crescent R. R., Port Angeles, Wash.—G. E. Prouty, 205 Summer St., Somerville, Mass., with Hayden, Stone & Co., bankers, Boston.—Marcellus Rambo, 321 South 20th St., Birmingham, Ala., business unknown.—Robert Rand, 201 Devonshire St., Boston, district manager, Corrugated Bar Co.—J. R. Randall, Powell River Paper Co., Powell River, B. C.—Willis Ranney, of Bartlett & Ranney, F Bldg., Ave. C, and Travis St., San Antonio, Tex.—W. P. Rayner, 440 South 43rd St., Philadelphia, Pa., manager, Kelly Motor Truck Co.—A. N. Rebori, professor of architecture, Armour Institute, Chicago, Ill.—E. H. Reed, 4758 Lake Ave., Chicago (now in Paris, France).—H. D. Reed, 39 Rindge Ave., Cambridge, Mass., with New England Tel. and Tel. Co.—J. F. Rehn, Hidalgo, N. L., Mexico, superintendent of a Portland cement manufacturing plant.—A. T. Remick, 103 Park Ave., New York City, architect.—Everett Rich, 15 Williams St., New York City, bond broker.—K. W. Richards, 383 Atlantic Ave., Boston, Mass., with J. W. Bishop Co., engineers.—E. C. Richardson, 17 Roy Lane, Montreal, Canada, manager St. Lawrence Welding Co., Ltd.—E. M. Richardson, 1886 Broadway, New York City, with American Locomotive Co.—Franklin Ripley, Jr., Troy Blanket Mills, Troy, N. H.—D. G. Robbins, 971 Chestnut St., Manchester, N. H., superintendent box factory of W. H. McElwain Co., at Manchester.—W. D. Robinson, 114 Federal St., Boston, Mass., with the F. W. Dodge Co., construction reports.—T. W. Roby, Jr., 41st St. and Park Ave., New York City, with C. J. Goldmark.—S. E. Rockwell, White River Construction Co., Camp Ozark, Branson, Mo.—V. S. Rood, superintendent Utah Apex Copper Co., Bingham, Utah.—D. C. Ruff, 598 Lincoln Ave., St. Paul, Minn., mechanical engineer with Chas. L. Pillsbury Co., Minneapolis.—C. F. Runey, Cudahy Packing Co., South Omaha, Neb., chemist and superintendent of glycerine department.—D. E. Russ, 23 Pinnacle Road, Rochester, N. Y., with Eastman Kodak Co.—L. P. Russell, 15 Copley Terrace, Pittsfield, Mass., real estate and life insurance.—M. W. Sage, patent department, General Electric Co., Schenectady, N. Y.—R. E. Sampson, Box 187, Pullman, Wash., business unknown.—E. H. Sargent, 719 State St., Albany, N. Y., State Water Supply Commission.—F. B. Schmidt, 1400 East 53rd St., Chicago, architect.—B. K. Sharp, 81 4th St., New Bedford, Mass., naval architect with Morgan Barney, 29 Broadway, New York.—R. E. Shedd, 20 Cedar St., Woburn, Mass., draftsman with Massachusetts Highway Commission.—F. B. Shields, vice-president and manager, National Process Co., 739 Newton Claypool Bldg., Indianapolis, Ind.—E. P. Slack, assistant in electrical engineering, M. I. T., Boston.—Gilbert Small, 428 Lexington St., Waltham, Mass., with J. R.

Worcester Co., structural engineers.—T. L. Smith, Gresham Court, Va., with American Locomotive Co.—Tracy Smith, 77 Chestnut St., Waterbury, Conn., consulting engineer.—E. B. Snow, 38 Prentiss Ave., Detroit, Mich., inspector, Michigan Inspection Bureau.—Winsor Soule, Santa Barbara, Cal., architect.—H. G. Spear, Berlin, N. H., chemist, Burgess Sulphite Fibre Co.—E. H. Squire, Woburn, Mass., business unknown.—O. H. Starkweather, superintendent of streets, Wakefield, Mass.—A. F. Stevenson, Homer, N. Y., bacteriologist, New York Dairy Demonstration Co.—F. C. Stockwell, instructor in electrical engineering, Stevens Institutue of Technology, Hoboken, N. J.—H. A. Sullwold, 1773 Summit Ave., St. Paul, Minn., architect.—P. N. Swett, professor, Middlebury College, Middlebury, Vt.—A. H. Tashjian, 3 Center St., Portland, Me., civil engineer.—R. K. Taylor, 31 Alveston St., Jamaica Plain, Mass., with Boston Transit Commission.—John Tetlow, 543 Broad St., Providence, R. I., machinist.—R. E. Thayer, *Railway Age Gazette*, 417 South Dearborn St., Chicago, Ill.—J. J. Thomas, lieutenant U. S. A., Fort Hancock, N. J.—E. A. Thornton, Ray Consolidated Copper Co., Ray, Ariz.—C. J. Trauerman, Tuscarora, Nev., mining engineer.—J. E. Tresnon, Telluride, Colo., mining engineer.—F. W. Tupper, Box 49, Walden, N. Y., contractor.—E. E. Turkington, 22 Otis St., Watertown, Mass., with Associated Factory Mutual Insurance Companies.—W. F. Turnbull, 510 West 124th St., New York, with American Locomotive Co.—A. K. Tylee, care Geo. T. McLauthlin Co., 120 Fulton St., Boston Mass.—F. R. Van der Stucken, president Van der Stucken Construction Co., Bethlehem, Pa.—S. R. T. Very, 25 West 42d St., New York, architect.—C. A. Vose, Marion, Mass., cranberry grower.—W. G. Waldo, Waldo Construction Co., Raymondville, Tex.—L. T. Walker, first lieutenant, U. S. A., Fort Wadsworth, N. Y.—P. B. Walker, Needham, Mass., with Boston Transit Commission.—P. B. Webber, 313 Shawmut Bank Bldg., Boston, Mass., interested in several gas and electric companies.—S. D. Wells, Forest Products Laboratory, Madison, Wis.—Laurence Wetmore, 26 South High St., New Britain, Conn., business unknown.—E. F. Whitney, with General Electric Co., Electric Bldg., Portland, Ore.—J. D. Whittemore, 34 Clinton St., Rochester, N. Y., electrical engineer with Rochester Railway and Light Co.—L. C. Whittemore, Board of Water Supply, Cornwall-on-Hudson, N. Y.—A. E. Wiggin, 520 Maple St., Anaconda, Montana, metallurgical engineer, Boston & Montana Consolidated Copper and Silver Mining Co.—H. S. Wilkins, assistant in physics, M. I. T., Boston.—R. H. Willcomb, St. Maries, Idaho, civil engineer.—E. C. Wilson, 139 Main St., Waterville, Me., general engineering business.—W. S. Wilson, 155 Ashland St., Roslindale, Mass., foreman, Cochrane Chemical Co., Everett, Mass.—E. S. Wires, Milford, Mass., of Tyler-Wires Co., tiling and fireplaces, Boston.—H. S.

Wonson, 149 East Main St., Gloucester, Mass., with W. H. McElwain Co., shoe manufacturers, 348 Congress St., Boston.—R. G. Woodbridge, 2418 West 18th St., Wilmington, Del., head research chemist, du Pont Powder Co.—W. L. Woodward, Dunkirk, N. Y., superintendent Dunston Lithograph Co.

1908.

RUDOLPH B. WEILER, *Sec.*, care The Sharples Separator Company, West Chester, Pa.

CHARLES W. WHITMORE, *Asst. Sec.*, 1870 Beacon St., Brookline, Mass.

I. *On the Part of the Secretary*

Information concerning the location of these men should be sent to the secretary at once, mail addressed to them having been returned.—William O. Ames.—Kenneth C. Boush.—L. F. C. Haas.—R. F. Haskell.—M. E. Allen.—Edward E. Bennett.—Horace W. Calder.—George R. Cooke.—Paul Remick.—Mr. and Mrs. Everett H. Newhall announce the birth of a son on June 23, 1912.—With regard to the Alumni Fund the report printed in the July REVIEW showed that one hundred and one members had at that time subscribed. This is but a small percentage of the total membership. It is apparent that all can give *something*, even if only a small amount. If each member will do what he can the class average will show a decided and prompt improvement. Remember the amount pledged can be spread over a term of five years. Loosen up!

II. *Matrimonial*

E. J. Beede was married on Wednesday, April 10 to Miss Marguerite S. Bennett at Worcester, Mass. They will reside at 123 School St., Belmont, Mass.—“Ed” Orchard was married on July 6 to Miss Marguerite E. Moseley. At home after July 15th, 14 Fletcher St., Roslindale, Mass.—Fred Cole was married on June 19 to Miss Grace E. P. Lewis at Quincy, Mass.—Alfred R. Hunter was married on August 12 to Miss Esther A. Lind at Worcester, Mass. At home after Sept. 1 at 14 Barnard St., Hartford, Conn.—Sherwood Hall, Jr., was married on July 10, in Calvary Church, East Liberty, Pa. to Miss Margaret Sara White, daughter of Mr. Elmer L. White, of Pittsburgh, Pa.—Paul A. Esten was married Wednesday evening, October 9, to Miss Marion Sinclair Stretton of Stoughton, Mass. Miss Stretton is a Wellesley College, '10, graduate. Mr. and Mrs. Esten will live in Concord, N. H.

III. *On the part of the Assistant Secretary*

The second annual field day and fifteenth bi-monthly dinner was held Saturday, July 15, and proved a grand success. The fellows met on the 1:20 boat for Nantasket Beach. A wildly excit-

ing baseball game was the first thing on the schedule and the honors went to the single men's team by a score of 12 to 8. The big play of the day was Langdon Coffin's wonderful catch of Bill Barton's home run fly. Bill had already knocked out three home runs out of three times up and on the fourth time up landed on what looked like another. Lang can't explain how it happened but when he came out from under, the ball was in his hand.

The teams were evenly matched and the married team in the lead until the fatal seventh, when Barton, the married pitcher, went to pieces. Five runs came in before he was replaced by Ed. Smith who stopped the slaughter. The married boys made a brave attempt to catch up in the ninth but the lead was too much.

LINE UP

SINGLE MEN

Boylston, c.
Chandler, 2d
Allen, 3d
Ford, p.
Ames, c.f.
Cook, l.f.
Coffin, l. (center)
Collins, s.s.
Heath, r.f.
L. T. Collins, 1st

MARRIED MEN

Clark, c.
Barton, p.
Smith, 1st
Belcher, 2d
Freethy, s.s.
Whitmore, 3d
Leslie, c.f.
Lyons, l. (center)
French, l.f.
Batchelder, r.f.

Runs by innings

Single

Married

1	2	3	4	5	6	7	8	9	
2	0	2	3	0	0	5	0	x	—12
1	0	4	0	1	0	0	0	2	— 8

Umpires—Pop Gerrish, Burt Cary, E. J. Scott.

Everybody went in swimming after the game and while in the water had a sort of water polo game which went to the married men. The assistant secretary was able to secure passes for all into Paragon Park, where dinner was held at 6.30 in the Palm Garden. Doing the park after dinner was the usual spree, with exciting things too numerous to mention. About half the crowd got separated from the rest at one time and those voting themselves the best looking had their photo taken on a post card. We would reproduce it here but for the fact that it was not clear cut enough and besides Burt Cary forgot to remove his cigar from his face. Coming home on the last boat we entertained the passengers with songs and at the finish broke up with a cheer.

The following were present: H. T. Gerrish, A. W. Heath, H. W. French, W. E. Barton, A. M. Cook, R. C. Collins, L. T. Collins, W. D. Ford, Geo. Freethy, C. W. Whitmore, C. W. Clark, S. C. Lyon, Munroe Ames, E. J. Scott, E. F. Lyford, B. W. Cary, W. Chandler, E. H. Newhall, C. L. Hussey, Geo. M. Belcher, R. J. Batchelder, B. S. Leslie, E. R. Smith, C. W. Boylston, E. Beede, L. H. Allen, L. B. Ellis, J. W. Wattles, 3d.

The sixteenth bi-monthly dinner was held Tuesday evening, September 10, at the Boston City Club.—There was a recurrence

of last winter's practice, that is, eight fellows who said they would come did not show up. The fourteen that did come had a very good dinner and a very exciting bowling match afterwards. Two six-men teams were formed, being of course married men and single men. Of course the married men won every time but not without a good fight on the part of the single lights. The following were present: A. W. Heath, A. B. Appleton, R. B. Todd, W. E. Booth, G. E. Freethy, H. A. Cole, B. S. Leslie, Langdon Coffin, B. W. Cary, Munroe Ames, W. D. Ford, R. E. Drake, S. C. Lyon and C. W. Whitmore.

IV. *Letters*

From C. O. Brown we have the following under date of April 16, 1912 from Manila, P. O. Bureau of Public Works:

I am returning the address card together with my dues for 1912. You will see that I have had the P. O. M^oO. in my pocket some time and have neglected to send it—just a simple case of “mañana,” quite common here. Of course you will say that my wife should have kept me straight and made me send it on, but then she had a hard enough task as it was to keep even. Yes, I joined the benedicts on October 14, 1911, as you will note by the card. Had a pretty wedding and six weeks “honeymoon” trip in Japan and are now comfortably settled at 1340 Calle Herran, Manila. Come out and call any time! We plan to get back to U. S. A. in 1913, though if the Democrats give these natives “independence” we’ll have to move sooner. And between you and me these Islands should never get away from the U. S. A. The natives are about as ready for independence as M. I. T. is to go out of business. You have some idea of the shiftless nature of tropical and semi-tropical people and the Filipino is no exception. The islands are marvelously rich agriculturally (ask Arlo if that is O. K.) but the need of labor is pressing and the exclusion law keeps out the best workman, the Chinaman. The claims and plans of the Anti-Imperialists are too foolish and impossible to warrant consideration but they tend to encourage the bad sort of agitator here and do harm. How I would like to take a party of that society on a month’s trip through the Islands; they would have to be absolutely blind if they didn’t realize at once that they had been making asses of themselves at home. I have been following with interest the developments in the “New Tech” and shall be ready to do my best when the call is sent out. Sorry that I can’t shell out a couple of millions, but I have my money all tied up at present, and can’t get any money out of Standard Oil here for they just had a big fire which cost them so much that the price of oil has gone up two cents a gallon.

—We have the following from R. E. Beck from Puerto Banios, Guatemala, C. A., dated July 28, 1912:

You will probably wonder who is writing you from down here in Central America. I should have liked to take in that class picnic this year but the fates decreed otherwise. I am afraid that the association with you married men, when bowling after the dinners at the City Club, was contagious, for I have the pleasure to tell you that Mr. and Mrs. W. C. Norcross, of Wellesley Hills, have announced the engagement of their daughter Katharine, Wellesley '09, to yours truly. This is certainly some fine country, mostly bananas, niggers and natives. I am with the United Fruit Co. and the work consists of farm surveys, sectionizing, location of tramways with grades and lines, also considerable drainage work.

1909.

CARL W. GRAM, *Sec.*, care Walter Baker & Co., Ltd., Milton, Mass.

As usual during the summer months there has been but little coming in. Following are a few items that reached the secretary. —Arthur Knipp wrote a very interesting letter from Canton Christian College, Canton, China.:

Your letter of six months ago is just attracting the check for which you asked. Class news in the REVIEW as well as general Institute news is always full of interest. It is gratifying to learn how Tech is at last coming into her own.

China is moving rapidly these days. Last summer we were wondering when the next revolution against the Manchus would come and to what degree it would be successful. Now it is an accomplished fact and China is starting out as a republic. Just at present it is so in name only. Canton, for instance, is governed by three men, followers of Sun Yat Sin, who have large military forces at their command and rule with an iron hand. This military régime is the best thing for the province under present conditions. The Governor is making use of many men who have just returned from study in America and England, and who are trying to establish an efficient administration of their departments. The great desire in the minds of all Chinese students is to go to America for study. Ten of the graduates of our Middle school are leaving Hong Kong today for that purpose, being sent by the Kwong Tung government. We are an undenominational missionary institution, with a total of eleven American teachers. Up to the present our work is not much above the grade of the American high school, chiefly on account of the difficulty of getting students who have a sufficient preparation in English and also on account of the great eagerness for education in America. All of our teaching, except that of Chinese history and literature, is done in English.

We get students from the best families in the province, and it is a great pleasure to work among them, especially as they quickly get a working knowledge of English. My own work thus far has been to teach Physics, to take care of the minor engineering problems which are always connected with a growing educational institution, such as water supply, surveying and electric lighting, and to get as good command of the language as possible. The latter is no mean task.

China is a country immensely rich in natural resources, and when she can borrow foreign capital and develop her rich mines, there will be engineering work and problems for many engineers of the best of training. I hope some Tech men will be attracted by the possibilities. We are planning for an engineering school as a part of our institution as soon as the students and the equipment are available.

Last summer I was off on an interesting trip with the president of the college, Dr. C. K. Edmunds, who for four years has been engaged during part of his time in making a magnetic survey of China for the Carnegie Research Institution. The survey took us northward across this province to the Meling Pass, then down the Kan River and across Lake Poyang of Kiangsi in small Chinese river boats to the Yangtse, then down the flooded Yangtse by steamer to Shanghai via Nanking, and from Shanghai back to Canton via Hong Kong.

This letter brings my hearty greetings to all my friends in 1909. I should like to write a personal note to each. The personal news in the REVIEW is always welcome, but even more so would be a short letter from some of the fellows, especially as Tech men are at a premium in this part of the globe.

—Ted Chapman who is at the Pueblo plant of the A. S. & R. Co. among other things writes:

My career since I left old Tech had not been a very exciting one. I took a position as assistant chemist with the A. S. & R. Co. and after about a year was promoted to be chief of the laboratory, where I have been ever since. Tom Black and Armin Herold were here at the time of my wedding, and outside of that I haven't seen any

'09 fellows. Herold is now on an orange grove in Redlands, Calif., and reports that he is doing very well. Robert S. Breyer, '10, worked with me for about a month and we used to talk over Tech, and how some of us '09 fellows used to try to make him cheer for '09 on the Public Library steps.

Everything is going finely with the boy and I expect to send him to the "New Tech," so as to graduate about 1935. I wonder how many other sons of '09 men he will be with there.

I am looking forward to the five year reunion and sure expect to be there. Hope there will be a bunch there. Say, sometime get into communication with Tommy Chapman who is assistant in the mining laboratory, and get him to tell you the news about himself. I don't know where he is this summer.

—Yes, be a sport, Tommy, and let us hear from you.—W. C. Ferguson and Eugene Hunt are respectively secretary and treasurer of the Walla Walla Valley Society of Engineers. "Fergie" writes the following:

Here is the much promised letter with the little news there is about myself. My engagement to Miss Mildred Baker of Walla Walla has been announced. Our house will be done in about a month. This may not be news to you as such things travel fast. Josh stopped off with us—Gene Hunt, Roy Anderson and myself—last spring on his way home to Los Angeles from Cobalt; and it was a very pleasant few days. None of the other '09 fellows have I seen although I have met men from other classes.

Last month the Tech men here in Walla Walla—graduates and fellows still at Tech, eight of us in all, had a Tech dinner which was a great success and will hereafter be an annual event. This is the first time that any college men have done that here, so you see Tech leads out here.

Received a card from Ed Hodsdon, '09, today announcing the advent of a boy into his family on Sept. 12. You may have heard of this already. Way up here in this corner of the States I hear very little news. What I get I get from the REVIEW. The Register of Students, which I received this summer, is a great thing. Have located a lot of the boys.

Business is good here and everything looks fine as the ranchers had a big harvest, wheat, running big to the acre—and wheat is what makes this country.

Mollie Scharff is now in Pittsburgh, Pa., as assistant to Morris Knowles, consulting engineer. Mollie says he "saw Bert Peet in Birmingham, Crawford in Athens, Ga., Stone in Louisville, and has talked over the 'phone to Brad Dewey here in Pittsburgh." He writes as follows:—

One of these fine days I'm going to drop in at Boston—as I did at New York ten days ago, and found Bounetheau holding down the club.

A recent addition here is Nicol, XI, '09, who is instructor in sanitary engineering at Carnegie Tech. And a couple of days since I bumped into Grossman, '11, on the street. He's with the Pittsburgh Testing Laboratory.

Saw many Tech people at the Congress of Hygiene and Demography at Washington. Also saw the Washington Monument, the Capitol, and much fine scenery—but none more so than Schnitz Schneider's Van Dyke.

I hope they won't change the five-year reunion to 1915; I'd hate to see it separated from our class five-years. Besides, everybody'll be going to San Francisco in 1915!

—Harold Stewart has just announced his engagement to Miss Marguerite Dudley of Milton, Mass. The secretary himself feels sort of responsible, as when Stewart was in Milton during the summer Carl helped promote a moonlight party up Blue Hill

for his benefit. Congratulations!—Norman Stubbs is on the jump again. After traveling over a considerable portion of South America he is now in Germany. Address temporarily is: Freiligrathstr. 14 II Hanover.

Barely in time to get in the November issue Thornley writes under dates of October 10, 1912:

If it's not too late I should like to let the crowd know that on June 26, Miss Annie E. Burnside became Mrs. Albert E. Thornley, and so the benedicts claimed another member. It's about time you heard from Temple on this same subject. Better write him if you haven't.

Everything connected with the "daily bread" end of life is going along smoothly, and by the looks of things shall stay where I am for quite a while longer. I happened to be in Boston for a few hours on Tuesday last and went over to look around the old stamping ground. School had just opened the day previous. It looked very familiar, and I must say that a little touch of lonesomeness came over me when I realized that my days there were over.

I hope any of the fellows wandering into Pawtucket will give me a call, even if only over the telephone.

—Joseph Matte who has been for three years in the service of the Boston & Maine has been appointed by the company as supervisor of all bridges on their lines in the state of New Hampshire.

—Art Shaw, our worthy treasurer, made good use of Columbus Day by getting married. He and Mrs. Shaw, who was Miss Helen Elizabeth Young of Clinton, spent their honeymoon touring the country in an automobile.

JOSEPH B. TRUEMAN

We learned during July of the death of one of our classmates, Joseph B. Trueman. He with a young assistant named Knox and Dr. Walcott, secretary of the Smithsonian Institute, were upset from a canoe on the afternoon of June 24. Dr. Walcott could not swim, but the younger man helped him to the canoe and just before the shore was reached Trueman was drowned. The accident took place near Atikokah in Western Ontario, where Trueman was the head of a geological survey party for the Dominion government.

Address Changes

Samuel H. Allen, 106 Rue De Reunes, Paris, France.—Salvador Altamirano, P. O. Box 1967, Mexico D. F., Mexico.—Albert J. Barnes, Maritime Tel. & Tel. Co., Halifax, N. S.—Louis Barnett, 139 S. 4th Street, Brooklyn, N. Y.—Seymour F. Barnett, 1816 12th Avenue, Seattle, Wash.—Charles L. Batchelder, 1210 Eculid Street, Washington, D. C.—Daniel Belcher, care of Bemis Brothers Bag Company, St. Louis, Mo.—Merton Belcher, Humboldt County Bank, Eureka, Cal.—Howard Belknap, 1136 Commonwealth Avenue, Boston, Mass.—Herbert H. Bennett, 3409 Walnut Street, Philadelphia, Pa.—Clarence J. Brown, 1417 Railway

Exchange Building, Chicago, Ill.—John R. Carson, Westinghouse Electric & Mfg. Co., Research Department, East Pittsburgh, Pa.—Richard L. Cary, 300 Club Road, Roland Park, Baltimore, Md.—John A. Christie, care of American Rubber Company, East Cambridge, Mass.—Horace L. Clark, Dunbar Hall, 7 Spring Street, Exeter, N. H.—W. W. Clifford, 50 Oak Street, Hyde Park, Mass.—Nathan L. Coleman, Union League Building, Los Angeles, Cal.—Albert K. Comins, 8 North High Street, Wakefield, Mass.—Alfred K. Comins, 53 West Kinzie Street, Chicago, Ill.—Howard W. Congdon, 272 Dudley Street, Providence, R. I.—Timotea Dar Juan, Bureau of Science, Manila, P. I.—Francis H. Early, 280 Park Avenue, River Forest, Ill.—Alan F. Edge, 6426 Harvard Avenue, Englewood, Ill.—Wilbur Everett, Mechanics Institute, Rochester, N. Y.—Frederick R. Faulkner, 350 8th Avenue, West Vancouver, B. C.—Wilhelm C. Fick, care of Standard Alcohol Company, 525 Rookery Building, Chicago, Ill.—Howard C. Fisher, Moshassuck Club, Saylesville, R. I.—Charles B. Fletcher, South Indiana Power Company, Bedford, Ind.—Matthews Fletcher, Bedford Stone & Construction Co., Bedford, Ind.—M. H. Foss, North Cobalt, Ontario, Can.—Bernard R. Fuller, 547 Riverside Avenue, New York, N. Y.—C. W. Gammons, 49 Cross Street, West Newton, Mass.—A. S. Gibbs, 46 Garfield Avenue, Medford, Mass.—Karl D. Godfrey, 46 St. James Street, Roxbury, Mass.—William D. Green, 2923 Charlotte Street, Kansas City, Mo.—Newman B. Gregory, care of Stubbs & Gregory, Practorian Building, Dallas, Texas.—V. C. Grubnau, Asarco, Durango, Mexico.—Miss M. C. Harrington, 57 Orchard Street, Jamaica Plain, Mass.—Calvin N. Harrub, 246 Highland Avenue, Trenton, N. J.—Derrick S. Hartshorn, Hotel Mt. Monadnock, Dorchester, Mass.—A. E. Hartwell, P. O. Box 105, Houston, Texas.—Delos G. Haynes, 746 South 10th Street, Newark, N. J.—George A. Haynes, 327–347 Summer Street, Boston, Mass.—Leon J. D. Healy, 152 Maple Street, New Britain, Conn.—Armin F. Herold, 3167 South Jefferson Avenue, St. Louis, Mo.—Robert N. Hoyt, 34 Bank Street, Princeton, N. J.—Carleton W. Hubbard, Moshassuck Club, 218 Walker Street, Saylesville, R. I.—John J. Hynes, Jr., New York State Barge Canal, Lockport, N. Y.—Louis Jacoby, 701–2 First National Bank Building, Houston, Texas.—Herbert L. Jenness, 54 Bushwell Street, Dorchester Center, Mass.—Allen Jones, Jr., 1431 Pendleton Street, Columbia, S. C.—Barry H. Jones, 5 Carroll Street, Poughkeepsie, N. Y.—Reginald L. Jones, Western Electric Company, 463 West Street, New York, N. Y.—William H. Jones, Ashland, Mass.—Garnett A. Joslin, 709 Central Building, Los Angeles, Cal.—Harry V. Kenerson, 496 King Street, London, Ontario, Can.—C. Kurtzmann, American Piano Company, 437 5th Avenue, New York, N. Y.—Frank J. Lange, Theodore Lange & Co., 257 Bridge Street, Springfield, Mass.—Paul H. Lazenby, 1800 Railway Exchange Building, Chicago, Ill.—Thomas A. Long,

10 Warwick Road, Melrose Highlands, Mass.—Lynn A. Loomis, 348 Congress Street, Boston, Mass.—Frank S. Lovewell, 384 Benefit Street, Providence, R. I.—Eugene C. Luening, 839 Lawrence Avenue, Chicago, Ill.—S. N. McCain, 1527 Florencedale Street, Youngstown, Ohio.—Paul McClintock, 27 Crescent Avenue, Chelsea, Mass.—George E. McKerman, 815 Washington Street, Newtonville, Mass.—Charles R. Main, care of Stone & Webster, 333 Forsythe Building, Fresno, Cal.—Henry H. Marshall, 179 Hawthorne Street Extension, Hartford, Conn.—Andrew L. Matte, North Adams, Mass.—Joseph Matte, Jr., 334 Washington Street, Providence R. I.—Roy Maxwell, care of Gilbert Hunt Company, Walla Walla, Wash.—Kenneth S. May, Stone & Webster, 147 Milk Street, Boston, Mass.—Thurston C. Merriman, P. O. Box, 191, Waterbury, Conn.—George A. Morrison, Apartado 863, Mexico, D. F., Mexico.—Alfred Mullhaupt, Jr., St. Mary's, Elk County, Pa.—John W. Nickerson, care of Glenlyon Dye Works, Saylesville, R. I.—Thomas C. Montgomery, 217 United Bank Building, Sioux City, Iowa.—Prof. Arthur E. Norton, 303 Pierce Hall, Cambridge, Mass.—George T. Palmer, State Board of Health, Trenton, N. J.—Albert S. Peet, 85 Newbury Street, Boston, Mass.—Benjamin W. Pepper, Underwriters' Bureau of New England, 141 Milk Street, Boston, Mass.—Frederick G. Perry, 266 Belmont Street, Watertown, Mass.—Joseph S. Pfeffer, 418 Ashmont Street, Dorchester, Mass.—Chester H. Pope, Forbes Lithograph Mfg. Co., Chelsea, Mass.—Edgar M. Post, U. S. Government, Elm Grove, W. Va.—William C. Read, 349 Maple Street, Sault Ste. Marie, Mich.—Frank H. Remick, U. S. Navy Yary, Portsmouth, N. H.—Edward T. Rice, care of General Electric Company, Erie, Pa.—Rudolf W. Riefkohl, care of John B. Perkins Company, 141 Milk Street, Boston, Mass.—Edward J. Riley, 150 West 98th Street, New York, N. Y.—Frank L. Robeson, V. P. I., Blacksburg, Va.—Rev. Elmo A. Robinson, Henderson, N. Y.—Rufus H. Savery, Elma, Wash.—Harold Schaffer, P. O. Box 108, McCammon Idaho.—Franz Schneider, Jr., 85 Newbury Street, Boston, Mass.—Julius H. Serra, North & Phelps, 30 Church St., New York, N. Y.—H. T. Shen, care of Commissioner of Foreign Affairs, Canton, China.—Dwight W. Sleeper, 141 Milk Street, Boston, Mass.—Phifer Smith, 2014 1st Avenue, Birmingham, Ala.—Robert L. Smith, 115 Lincoln Avenue, Winchendon, Mass.—Xanthus R. Smith, care of Motor Com. Del. Company, 230 North 22nd Street, Philadelphia, Pa.—F. H. Soderstrom, Hotel No. 3, Garfield, Utah.—Harold M. Symons, 716 Grand Avenue, Laramie, Wyo.—Raymond B. Temple, 35 Temple Street, Reading, Mass.—Michael Terry, 302 William Street, Flint, Mich.—Miss Rebecca H. Thompson, 50 Via San Sovia, S. Basilio, Rome, Italy.—Stuart Thompson, General Electric Company, Schenectady, N. Y.—Thomas A. Tiltard Government Irrigation Service, Kharteum, Sudan, Africa.—Prof. Lockwood J. Towne, University of Illinois, 207 English Hall,

Urbana, Ill.—Arthur H. Turner, Martinique Apartments, Ellis and Ivy Streets, Atlanta, Ga.—Mrs. Stanley M. Udale, 497 East Buchtel Avenue, Akron, Ohio.—George N. Varney, American Locomotive Company, Montreal P. O., Can.—Miss Alice F. Walmsley, 2 Short Street, Boston, Mass.—Arthur T. Warner, 123 Tremont Avenue, Orange, N. J.—Robert Weinstock, care of Weinstock-Nichols Company, San Francisco, Cal.—Aber S. Wiester, 656 Market Street, San Francisco, Cal.—Robert W. Williamson, City Hall, Shreveport, La.—Herbert B. Winterstein, Belle Plaine, Iowa.—Ira W. Wolfner, 143 High Street, Peoria, Ill.—Robert V. Zahner, 3708 Spruce Street, Philadelphia, Pa.

1910.

JOHN M. FITZWATER, *Sec.*, Ovid, N. Y.

G. BERGEN REYNOLDS, *Asst. Sec.*, 142 Highland Avenue, Somerville, Mass.

The secretary is very much pleased with the results from the return postal card system. The courses which are well organized are I, II, III, IV, V, VI, VII and VIII. Courses X, XI, XIII and XIX have yet to be brought into the ranks. All the members of the class should make it a point to keep in touch with the course secretary and answer his postal card promptly in order that the notes for the REVIEW may be in on time. Once more you are urged to pay your class dues for the year 1912, as it will not be long now before the bill for 1913 will be sent out.

Marriages—Class 1910

Gorton James was married, August 27, 1912, to Miss Margery Allen at St. Paul's Church, Marquette, Mich. Mr. and Mrs. James will be at home at 35 Concord Street, Cambridge, Mass., after November 1.—Roy H. Abbe, who is now assistant manager of the Sterling Silver Manufacturing Company of Newburyport, Mass., was married August 26, to Miss Vera L. Marsh, daughter of Mrs. Annie B. Marsh of Boston. We understand that Mrs. Abbe is gifted with much musical ability.—Mr. and Mrs. Abbe will be at home at 268 High Street, Newburyport, Mass., after December 1.—Henry Appleton Hale, Jr., was married to Miss Beatrice E. Kingsbury at the bride's home in Bangor, Me., June 19, 1912. Among the ushers was G. Bergen Reynolds. Mr. and Mrs. Hale have been at home on Lowell Street, Salem, Mass., since September 1.

Course I

M. A. Lyons, Winnipeg, Man., writes:—

I am at present with the Prov. Dept. of Public Works in charge of the drainage district in the Province. Canada is the place for young engineers.

C. R. Benton writes:—

Just at present I am located with the N. E. Tel. and Tel. Co., here in Boston. Last summer I was engaged on track elevation work in Chicago. Roomed within a stone's throw of Don Williamson and used to play tennis with him often. Also saw Noble, O'Brien and Bates. Parsons dropped in on me one day. He had just returned from a year at the Panama Canal.

Ralph A. Smead is with the U. S. Geological Survey in the White Mountains.—J. B. Babcock writes that he is resident engineer on construction of the Southern New England Railroad.—Kenneth P. Armstrong is with Durkee, White and Towne, civil engineers, Springfield, Mass. He writes that he is engaged in location and construction of electric railways in Western Massachusetts. At present he is located in Worcester, and is doing work on maintenance and new construction for the Worcester consolidated Street Railway Company.—Johnny Avery is in the wilds of Costa Rica—a member of one of four parties making a survey which, when completed, will be submitted to the Chief Justice of the U. S. Supreme Court, who is to decide a long standing dispute as to the boundary line between Panama and Costa Rica. John Howard, '03, of the civil engineering department of the Institute is in charge of the party with which Johnny Avery is connected. Avery left New York, January 12, and expects to return the last of the year. He writes that he is having some wonderful experience, and accumulating a bank roll, so meet him at the dock when he comes home.—Louis G. Rowe is junior engineer, U. S. Army engineers on River and Harbor Improvements. Rowe writes:—

I am now spending the summer with my wife at Gloucester as I am stationed here on ledge work in Gloucester Harbor.

Arthur J. Foote is working with the Degnon Contracting Co. in New York. They have a section of the new Lexington Avenue subway located by City Hall Park.—Richard P. Watson is in the insurance business. He writes that he transacts all kinds of insurance and feels that he has done fairly well.—Rafael J. Torralbas, 26 Correa Street, Jesus del Monte, Havana, Cuba, writes:—

After graduation I came to Cuba, my home. For two months I worked for a contracting company as assistant engineer on the new sewerage system of this city. Then I started as inspector in this city on the new pavements. Here I was promoted to assistant division engineer, and remained until last February. Since March I have been in the service of the City Water Supply, where I am now.

Albert J. Beach writes that he is still with the New England Telephone and Telegraph Co., in the Plant engineering department at 50 Oliver Street, Boston.—George L. Mylchreest is in

charge of the structural design in the office of Ford, Buck & Sheldon, consulting engineers. Mylchreest writes that a young Tech sub-freshman arrived at his home on the 24th of May, and that the little fellow is doing finely.—Michael A. Coplan is inspector of Public Works in the U. S. Navy at Narragansett Bay Naval Station.—L. W. Greeley, Wheeling, West Va., writes:—

Just reached Wheeling, W. Va. I am now a draftsman for the Riverside Bridge Co., and am very well pleased with the progress I have made in these two years. Think I shall stick to the steel business forever.

Course II

L. O. French, 1903, N Street, N. W., Washington, D. C., writes as follows:—

I am still examining patent applications for Uncle Sam and have put one year of law school behind me. The work at the patent office is extremely interesting because hardly any two cases are alike and there is consequently something new coming up all the time. As for the law I have found like many others that "she is a jealous mistress."

E. A. Redman, care of Continental Gin Co., Birmingham, Ala.:—

At present I am designing gin outfits and the arrangement of machinery which is a sort of cross between the power plant design and mill engineering work which I had in my option. There are at present about twenty-five Tech men in this district, but none are of 1910. We have formed an alumni association which has weekly luncheons at the Turnverein. It might interest some of the old crowd to learn that I intend to join the ranks of the benedicts, but that I had to go 680 miles from here to get suited. The young lady is Miss Elizabeth Rhoades Veach of Warsaw, N. C. Wish that Boston and Tech were in the South for it is the finest country in the world. We had just one snow storm all winter, and the hottest it has been is 96° this summer, but it does not seem any warmer than a spring day in Boston.

N. H. Perley writes that he is still draughting in the experimental department of the Hood Rubber Co., and finds the work most interesting.—R. A. D. Preston, Akron, Ohio, writes as follows:—

This postal card stunt I think O. K., and a good thing to get together class news. Please correct a misprint in last REVIEW. I am assistant to factory manager at G. T. R. Co., and not assistant and factory manager. Things are bowling along pretty smoothly in the plant now, and we are making a lot of tires, but no special excitement. The plant is increasing all the time, and erecting a big new building. Akron 1910 bunch held an informal reunion and dinner at Portage Hotel. Max Sherman blew in from Barherton.

H. C. Manson is a salesman with the Franklin Motor Car Co. He writes that he enjoys working on the motor and that the business part is also very interesting.—Several have inquired for Ruckman, and after much effort the secretary received the following statement:—

As you may remember on class day the class gave me to understand that they wished to hear no more from me. They won't. I trust you are getting on first rate as I see most of us are.

Harold Lockett writes that nothing of any particular interest to others ever happens in his (hardware) business. Chicago is a fine stopping place and so he meets a lot of fellows coming and going.—M. T. Turnbull, T. G. Brill Co., Philadelphia, Pa., writes: "Too hot for more details,"—Donald V. Williamson, 105 Burpee Avenue, St. John, N. B., writes as follows:—

I've been up here about six weeks—coming from Chicago. I am with the Maritime Nail Co., Ltd., and we make wire and wire nails. It is a very interesting business. I am assistant superintendent and have the job of remodelling the plant and enlarging it.

From Henry S. Heink, Paterson, N. J.—

I do legitimate detective work and have a special branch in my business where we attend to all labor troubles.

Lee Kalback, Oskaloosa, Iowa, writes that he has a baby daughter, Mary Marcia Kalback, who was born on April 22, 1912.—G. Bergen Reynolds is back at the Institute taking Course X.

Course III

Andersen, R. E., 307 Broadway, Cincinnati, Ohio, writes:—

I hasten to send my tale of woe. At present I am kept busy for most of the time dredging along the Ohio River between Pittsburgh and Cincinnati. At present we are laid up for repairs as our two tugs are out of commission. I find the work very interesting. We also do the survey location work, too. Am on the U. S. Dredgeboat *Ohio*, Sherman, W. Va., at this writing.

Bartlett, R. L., Mass. Inst. Tech.—Bartlett takes up the pleasant duties of assistant in the mining department for this year. He has been given a year's leave of absence from Lehigh, due to a rearrangement of their mining course, and joins forces with myself for the fall campaign with the fourth year ore dressing work.—Bigelow, B. Treadwell Co., Treadwell, Alaska.—Brax writes as follows:—

What happened to "Flow Sheet" No. 2? If it was ever published I never got mine. I am still doing the Treadwell Co. the best exercise I have ever had.

Brax has his lost "Flow Sheet" by this time and again knows of the ramifications of his brother miners.—Burnett, R. F., Chisholm, Minn.:—

I expect to be in Boston about November 10, on a four months' leave of absence. Of course I could not but come around for a visit to Roger's Basement.

—Goodspeed, G. E., Roslindale, Mass.—Goodspeed has been at the Institute for two years as instructor in mineralogy, petrology and geological mapping, and has been appointed instructor in mining at the Oregon Agricultural College. Eddy expects to start in on September 20.—Hargraves and Hopkins, Porcupine, Ontario, Canada.—Bill and Hop are running the Pearl Lake Mine,

Bill being head of the underground end of it while Hop looks after the fellows "higher up."—Hurley, Fred, Maryland Steel Co., Sparrows Pt., Md.—Fred was in Boston for a couple of weeks in August, just to look the town over, and we had the pleasure of helping him in the task of doing up Nantasket and what there is down there.—Jones, R. L., Mineral, Va.—In a long, interesting letter he states among other things the fact that he is contented, although the job of assistant superintendent "keeps me between the devil and the deep blue sea" (regular Cape Cod expression). He bemoans the fact that he missed an appointment with Hurley in Washington lately.—Webb, C., Canadian Klondike Mining Co., Dawson, Yukon Terr.—Have heard indirectly that Webb is right on the job and doing things. Answer the card next time, Webby, that we may have a line on you.—Wohlgemuth, B., Y. M. C. A., Wheeling, W. Va.:—

I received your postal and wish to answer with a short but sweet letter (proper idea). I have been working pretty steadily and so have had very little chance for extensive correspondence. I am still with the National Tube Co., in capacity of furnace foreman. I like the work as well as ever, for it's a man's work and very interesting.

—Perry, H. R., M. I. T.:—

Just got down from Maine to get out this news for the REVIEW, and am going to St. John and Eastport with "Bob" on a fishing and young game trip tomorrow. Will be back at school with Bartlett for company this fall.

Course V

All our distant members responded to the letter sent out, most of those near Boston remained inert. In the future return postals will be sent and we trust the replies will give a value for the total energy of the chemists that is based on a larger number of observations than here recorded.—Lord is submerged in oil,—he writes from Corsicana, Texas:—

Texas is *some* state specializing in cotton, Democrats, and pretty girls,—one of the latter class I hope to take with me on my next jump in my journey 'round the world. As matter of fact I do anticipate another change by fall, probably to Beaumont, where our chief refinery is located. I am full of oil now and have forgotten whether water flows thru distributing pipes or not.

He inquires if Clough is married,—is he?—Waters is still "soup-attendant" with the Joseph Campbell Co., Camden, N. J. They haven't canned him yet in spite of his puns which he still persists in.—Rumor has it that Schofield was married recently; congratulations, Doc, you might let the fellows know.—Trevethick writes from Vicksburg, Miss.:—

Was married December 26, 1907, and had a son born November 7, 1909. I left Tech, you may remember, in July, 1909, and came South. Have been chemist for the Refuge Cotton Oil Co. ever since, and am liable to be for some time. In the summer of 1910 they gave me \$700 worth of new apparatus and this summer about

the same. In 1911 I had seven weeks' vacation. Have also had three increases in salary and have been promised a fourth for October. I've already pledged what I could to the Alumni Fund. Am sorry I can't pledge more, but Wesleyan University hit me first and hard.

—Luther Davis is still with Haffenreffer Brewery—"still watching the suds;" "beer always on tap at the brewery," he holds out as an inducement to call there; the arrival of Davis, Jr., has already been announced.—Higbee, formerly with Course VIII at the 'Stute, writes:—

My history since leaving the 'Stute has been brief. I am still free and uncombined. After having been out a year on account of sickness, I got my B. A. from Yale last June and expect to go back in the fall for graduate work in math. While I am a loyal son of Yale and now sing *only* "To hell with Harvard," I am none the less proud to be a Tech man still.

We didn't hear from Dunlap; he is too busy running for president of the Fat Men's Club, and we must expect a big weight.—Clough, when last seen, was haunting the laboratory of the McElwain Company in Merrimack, N. H.—L. Rosenstein, after being an instructor in theoretical chemistry for the past year, has accepted an appointment to the University of California. Address, 2021 Broderick Street, San Francisco, Cal.

Course VI

H. E. Beebe writes us from Ipswich, South Dakota:—

Have made money at contracting and this year have the best field of corn in this part of the state. Am assistant cashier of the Bank of Ipswich.

Not exactly electrical engineering, but it sounds good to some of us city folks.—Henry G. A. Black, 636 Rock Creek Church Road, N. W., Washington, D. C., has finished his first year in law at George Washington University and is located at the U. S. Patent Office, Room 242—George Conner was called to his home in Truro, N. S., early in June, and will remain there until November on a leave of absence from the National Electric Lamp Association of Cleveland.—Herbert Gott is with the New York Railways Co., 761 7th Avenue, N. Y., and is studying in the Metropolitan Street Ry. Co. Training School. He is engaged in transportation work along with E. M. Potter, '10.—Robert L. Dodge is now located at Palmyra, New Jersey. The announcement in the July class news of Mr. Dodge's engagement was an error. The REVIEW regrets and wishes to correct this misstatement.—Arthur Harding writes briefly from McCook, Nebraska:—

After leaving the 'Stute I joined the Telluride Power Co., Telluride, Colo. Held job as superintendent of operation when I left. Came to McCook, April 1, 1912, as manager of McCook Electric Co.

—Frank A. Hayes is with the Robins Conveying Belt Co., Park Row Bldg., New York City.—Stuart L. Henderson is in the test-

ing department of the Westinghouse Electric and Manufacturing Co., East Pittsburgh, Pa. Home address, 404 Gray Bldg., Wilkinsburg, Pa.—John A. Holbrook, Westside Road, Milton, Mass., is with the Boston Transit Commission:—

At present boring two or three holes under the city. The work is far from electrical, but interesting and instructive as far as civil engineering goes.

—Edward S. Howe, Westinghouse Elect. & Mfg. Co., 201 Devonshire Street, Boston, is “on the road” in New England as a service engineer. “Unmarried with no prospects.”—Albert Huckins writes us (July):—

Loafing is my strongest suit at present. Have been laid up for a week with an appendix which is to be removed—so it looks like a month before I get back to work. Am with Stone & Webster now on building construction, but perhaps I had better begin at the beginning. For a year after leaving the ‘Stute I worked in the repair shops of the Bay State St. Ry. Co., thinking I wanted to learn the street railway business. Then I got in with S. & W. and from April of last year until February of this worked on a new central station the company built for the “L” at South Boston. Have a variety of work, inspector of the pile drivers, inspecting concrete, running lines, giving grades, figuring, etc., so you see I am getting a lot of experience at any rate. Rather a jump from the electrical line but I like it very much. The company has just started on a big factory in East Cambridge, and we are all hoping that by next spring we’ll be at work on the Tech buildings.

Huck’s address is 6 Wilbur Street, Dorchester, Mass.—George McRae, since graduation, has been with the engineering department of the American Tel. & Tel. Co., 15 Dey Street, New York City.—Carroll Shaw was married on June 25, 1912, to Miss Natalie S. Howe of Kingston, Mass., and after a trip through Canada spent the summer at Winthrop, Mass. Carroll holds a position with the National Electric Lamp Association of Cleveland and is manager of the Permel Sales Co. of Warren, Ohio.—Francis Silsbee took his master’s degree in June, 1911, and after a summer abroad started in with the Bureau of Standards, Washington, D. C., where he is now located. Home address, 1924 H Street, Washington, D. C.—Stanley M. Smith is with the Electrical Commission, 136 St. James Street, Montreal, P. Q.—George T. Southgate entered the service of the Houston Lighting & Power Company as electrical engineer after graduation, and has been with the company in that capacity ever since. Address, 1502 Commerce Avenue, Houston, Texas.—H. M. Trueblood, Jefferson Physical Laboratory, Cambridge, Mass., is a graduate student in physics at Harvard, doing research work in thermodynamics.—Lewis S. Southwick spent a year with the Charlestown Gas & Elect. Co., as superintendent of lines, but resigned in June, 1912, to enter the employ of the Idaho Oregon Light & Power Co. At present he is located in Boise, Idaho, helping to work up a market for the power in that city.—C. W. Wallover, upon graduation, was appointed division leased wire supervisor of the A. T. & T. Co., with headquarters at 15 Dey Street, New York. On January 1, 1911, was shifted to Troy, N. Y., to

become chief testboardsman, and on July 1, went to Buffalo as district plant chief, which responsible position he now holds, "Well satisfied, excellent prospects, working hard." 293 Triangle Street, Buffalo, N. Y.—Fred Lufkin is with the Boston Insulated Wire & Cable Co., Dorchester, Mass. He says:—

I've recently changed my job and am beginning to think that after all we had a pretty easy time in the four years at Technology.


—Allen Gould, after graduation, entered employ of the W. H. McElwain Co., of Boston, as superintendent of power at their Merimack (N. H.) plant. Left the company and came to Cleveland in September, 1911, to take a position in the engineering department of the Peerless Motor Car Co. Address, 2042 E. 115th Street, Cleveland, Ohio.—We are late in recording the marriage of John Myrick to Miss Sybil Berry of Newtonville, Mass., on April 19, 1911. After graduation John took the student's course with the New England Tel. & Tel. Co., and now holds a position in the traffic department of that company.

Course X

Mr. and Mrs. Charles Parker Washburn of Boston announce the engagement of their daughter, Alice Standish, to Raymond W. Jacoby.

1911.

ORVILLE B. DENISON, *Sec.*, 7 Wachusett Street, Worcester, Mass.

 Note change in address of secretary.

By the time this manuscript reaches you, gentle readers, you will doubtless have settled down for a winter of hard but encouraging work. The World's Series will have passed, with all its attendant excitement and flurry, and the world will again move along freely despite the efforts of the great Bull Moose to have "even the winds and the tides obey him!" Many of our classmates have settled down in double harness; many others are contemplating such action; and many others—ah, yes, *many* others—are journeying along unhampered as yet in the race of life. (No, this is *not* a sermon, nor even a dissertation on Life and Its Idiosyncrasies, Hortense!)

In spite of the heart-rending pleadings of the secretary in Vol. XIV, No. 7 of the REVIEW, there has been a noticeable dearth of letters from members. Just glance over the top of the magazine. What's that over there? Why, that's a desk, isn't it? Look, there is a pen and some ink on it. There is paper, too!—forty reams of the finest linen! Let's see—oh, yes—7 Wachusett Street, Worcester, Mass. That's "Dennie's" address. Then *do it*. Get me?

I. Still More of that Matrimonial Dope

"Stepping right over here, ladies and gentlemen, we have the gallant troupe of men who have recently become benedicts (not to be confused with bendictine(!) and as such are of general interest to all!"—On Sunday the thirtieth of June, in Marlborough, Massachusetts, John Arthur Bigelow, erstwhile "stodent," was married to Miss Anna Theresa Cashman of that city. The young couple are now at home in Wakefield, Massachusetts, where John is engaged in architectural work.—Gather closely, friends, and to you will be imparted a fine bit of news. This is really a "scoop" of the highest order. "Mike" Greenleaf is married! Honest! Cross-my-heart, hope-to-die, if he ain't! It all came about on the eighteenth of September in Cleveland, Ohio, when Sir Michael—real name, Kenneth, of course—was married to Miss Hazel Craig. You see by that time, Cleveland was hopelessly out of the American League race, so something was necessary to liven up the burgh. Hence the wedding! Mr. and Mrs. Greenleaf will be at home after December first at 5 Dartmoor street, East Cleveland, Ohio.—Frank G. Smith, Course III, and Miss Roberta Mansfield Anderson were married in Wells, Maine (wherever that is!) on Wednesday, the second of October. It's a long walk back from Maine, but then Frank is still young and won't mind that.—Last, but not least, in this month's announcements, comes "Ted" Van Tassell's. Thursday, the tenth of October—that's the date of the marriage of E. D. Van Tassell, Jr., and Miss Amy Elizabeth Plant in Newton, Massachusetts. Mr. and Mrs. Van Tassell will be at home after January first at 12 Edgehill Road, Winchester, Mass.—Rudolph Emmel was married October 10, to Miss Elsie H. Nickerson of Roslindale, Mass. Mr. and Mrs. Emmel will live in Ludwig, Nev., where Emmel is a foreman of miners.

To each and every one of the newlyweds the secretary extends heartiest congratulations and very best wishes for the future!

Just as the proofs of this month's notes are being corrected and returned by the secretary, a letter comes announcing the marriage of Mr. Stuart Brown Copeland and Miss Madeline Herbert Draper in Brookline, Massachusetts, on Saturday the twelfth of October. Congratulations, "Stu."—Still another recent bit of matrimonial news—or rather near—matrimonial news—is the announcement of the coming wedding of W. J. Simonds, Course I, to Miss Marjory Searles Curtis at Marlborough, Massachusetts, on the 23d.

II. What Our Young Men Are Doing

Once again the secretary's address has been changed. It is now 7 Wachusett street, where an impromptu bachelor's apartment is being shared by Charlie Barker, three Worcester Tech grads and the secretary. The latchstring is always open to any and all 1911 men who chance to pass through Worcester at *any* time. Just as

soon as you strike the town, call up 2959-M and ask for Barker or Denison. Just jot the number down for possible future reference.—Ed. Vose spent three months in Worcester, recently, following the close of the school year 1911-12, when he was an assistant at the 'stute. He was on an inspection job for Stone & Webster, and lived at 152 West street with "Gus" Barker and the secretary. He is now in Barbarton, Ohio, still with Stone & Webster and is living with "Larry" Odell, who is located in Cleveland. Their joint address, however, is still unknown by the secretary.—Foster Russell, one of the Course II "mechanicians," has left Jamestown for Spokane, Washington, where he is "farming." He writes from 2702 East 8th Avenue, Spokane, Wash.:—

Am back at my "before I entered Tech" occupation, farming and poultry. Don't doubt that my technical training aids me in devising new tortures for the cut-worm, banishing lice from a cabbage-head, making hens lay, and other problems of the rural life. I claim that the backbone of the American nation and the upholder of all our liberties is none other than the noble farmer. Why, I could go on and on, expanding on said farmers' greatness, but will not at this time, as I have an appointment with a few weeds. Will hurl just one overwhelming thought—If it were not for the horny-handed son of the soil, what would Charlie Wirth do for ducks? Answer—He'd have to raise them on the New Technology site and swim them in the Charles River Basin: result, no "New Technology."

Such letters as the above are indeed welcomed by the secretary. Send 'em along!—Stacy Bates, a classmate, after graduating from the University of Illinois last June, is, at last reports, at his Paderes Ranch, El Cajon, California. He writes:—

At present am doing a little ranching here in California. Rather far removed from M. E., but nevertheless most enjoyable. My permanent address, as before given, is 377 Boylston Street, Boston. Am hoping to make a short call on Scott Kimball, who is at present in Balls Ferry.

—Juan Matamoros, who was connected with 1911 for a time in Course I, is doubtless now at home in Costa Rica. Early in August he wrote that he was in Washington for a short time, but that he would soon return to San Jose, Costa Rica.—Charlie Barker is at the present writing away on a ten days' trip to Baltimore and Washington. He expects to go to work the day after he returns. How are you betting?—Rufus Crane, Course I, is now engaged at Baker University, Baldwin, Kansas, in civil engineering work.—H. F. Dolliver is still with the Aberthaw Construction Company, but has been transferred to the Ontario side of Niagara Falls for six months. No; this is not a jail sentence!—"Joe" Fuller is now with the General Bakelite Company, at 100 Williams street, New York City. Wrong again, children, Bakelite is not the General's real name!—H. G. Jenks writes:—

Have been too busy in actually graduating a year late to pay much attention to alumni matters, but put me down for a live one with the rest of the 1911 bunch.

—A little over a month ago, Charlie Barker and the secretary were delighted to receive a call from Burgess Darrow, who was home

from Akron, on a vacation. Later in the evening, we saw C. P. Johnson, another popular classmate at the station. Just before that, had a nice sociable evening with "Bert" Fryer, who happened to be in town on business.—W. D. Richardson, of banjo club fame, has just located in Worcester while at work on some transmission line installations.—E. C. Savage has left the American Optical Company in Southbridge, and is now in San Francisco.—To Tan Sun is now with the Bethlehem, Steel Company in Bethlehem, Pennsylvania.—H. S. Waite is now in South America, and may be reached, care of London & Brazilian Bank, Buenos Aires, Argentine Republic, S. A.—Just received a note from C. R. Johnson from Akron, in which he announces his engagement to Miss Gladys Haynes Spencer of Leominster. Congratulations, "Johnnie!"—Another letter just received—this from "Joe" Aaron, Course VI. He is still with the Westinghouse people in and around Pittsburgh. Says he expects to be in the Hub the last week in November and first in December. He is now living in Wilkesburg.—Let's keep this column full of "live" news, fellows! Hearty coöperation will do it!

A letter just received from Bogdasarian, Course IV, reveals the fact that he is at present in Wissahickon, Pennsylvania. "Bog" has our sincerest sympathy in residing in such a jaw-breaking hamlet, but he says he enjoys his work as draughtsman with the American Bridge Company. He has been with several firms since leaving the 'stute, including the Lockwood-Greene Company, New England Structural Company, Chickering Piano Company and the American Bridge Company. "Bog" says he ran across O. S. Clark, a classmate, recently in Boston.—Roy L. Hayward, Course I, writes of an interesting and instructive trip of ten months with the Costa Rica-Panama Boundary Commission. He has now left for Evanston, Illinois, to help prepare some maps in connection with the Costa Rica Panama Boundary dispute. He says he expects to be a "tramp" for a few years, but asks that mail be sent to E. B. & C. L. Hayward, civil engineers, 62 School street, Boston, Massachusetts, whence it will be forwarded.

III. *That Alumni Fund*

At the end of six months (October first) the Alumni Fund amounts to \$422,591.88 from 1960 subscribers. Of that amount 1911 has subscribed \$2943 from 125 men, for an average of \$23.50 per man subscribing. Figuring on the basis of \$10 per man per year out of school, 1911 should raise \$6350. Of this amount 46.3% has been raised. In the matter of percentage of class assignment subscribed our class stands eleventh. In the matter of percentage of men in class subscribing we stand twenty-seventh, with a percentage of only 19.7. This is a very bad showing and *must* be remedied. An active campaign among 1911 men is very shortly to be launched by the secretary.

IV. *Address Changes*

The following changes have been received by the secretary:—J. A. Aaron, care of Westinghouse Club, Wilkesburg, Pennsylvania.—Walter D. Allen, Box 123, Groton, Connecticut.—Charles M. Barker, 7 Wachusett street, Worcester, Massachusetts.—Carl S. Barnes, 11 Highland Park, Batavia, N. Y.—Richard S. Bicknell, 50 East 41st. street, New York City.—John A. Bigelow, Wakefield, Massachusetts.—James B. Cheney, 195 East 30th street, Chicago, Illinois.—Antonio Clavell, Box 13, Ponce, Porto Rico.—Rufus Crane, care of Baker University, Baldwin, Kansas.—Arthur H. Curtis, 72 Centennial Avenue, Revere, Massachusetts.—Orville B. Denison, 7 Wachusett street, Worcester, Massachusetts.—Henry F. Dolliver, care of American Cyanamid Company, Niagara Falls, Ontario.—J. C. Fuller, care of General Bakelite Company, 100 Williams street, New York City.—K. Greenleaf, (after December first), 5 Dartmoor street, East Cleveland, Ohio.—Otis Hutchins, care of Carborundum Company, Niagara Falls, New York.—Harold G. Jenks, 34 Upland Road, Melrose Highlands, Massachusetts.—Cleon R. Johnson, 83 North Union street, Akron, Ohio.—Otto C. F. Meisel, 10 Upland Avenue, Dorchester, Massachusetts.—Foster Russell, 2702 East 8th Avenue, Spokane, Washington.—Edgar C. Savage, 2459 Howard Avenue, San Francisco, California.—O. R. Schurig, 22 Manchester street, Pawtucket, Rhode Island.—John H. Scoville, P. O. Box 5, St. John, New Brunswick.—Nat S. Seeley, 40 Welles street, Forty-Fort, Kingston Station, Pennsylvania.—To Tan Sun, care of Bethlehem Steel Company, Bethlehem, Pennsylvania.—Henry W. Van Hovenberg, 739 Boylston street, Boston, Massachusetts.—E. D. Van Tassel, Jr. (after January first), 12 Edgehill Road, Winchester, Massachusetts.—Ralph E. Vining, 215 High street, Perth Amboy, New Jersey.—Horace Stokes Waite, care of London & Brazilian Bank, Buenos Aires, Argentine Republic, South America.—Harry W. Waterfall, 1703 Wallace street, Philadelphia, Pennsylvania.—Peter D. White, 109 Bedford street, Stamford, Connecticut.—Gordon B. Wilkes, 1464 Beacon street, Brookline, Massachusetts.—Irving W. Wilson, 229 Third street, Niagara Falls, New York.—Suren Bogdasarian, care of Mrs. A. Ellenger, 160 Sumac street, Wissahickon, Pennsylvania.—Roy L. Hayward, care of E. B. and C. L. Hayward, Civil Engineers, 62 School street, Boston.

1912.

RANDALL CREMER, *Sec.*, Mass. Inst. of Tech.

It is a matter to be regretted that so little correspondence has come in during the course of the summer from the different members of the class. Perhaps each one thinks he would better wait until he "makes his pile," and then send in a glowing account of

it all. But the waiting will be a tedious process for those of us who are doing it. What we want is to keep in close touch with you, to hear all that you have been doing since you left here in June, and where you are working now. Don't forget to send in any choice bits of news about other classmates, too; there are lots of things they pretend to be reticent about telling. Very few men would send us announcements of their engagements or weddings. Such news, often most interesting of all, must generally come through other channels. So if you haven't become entangled yourself, and can't think of anything about yourself worth telling, write about the other fellows of whom you have heard.—The following from the *Boston Post* of September 6, speaks for itself. We can only offer heartiest congratulations to the happy man who "slipped one over" on us all:

Friends of Miss Margaret Sullivan, daughter of John F. Sullivan, a leather merchant of Brockton, were surprised today to learn of her marriage last February to Fernando Lavenas, the son of a rich Argentine Republic railway magnate. Miss Sullivan is a graduate of Brockton High and of Smith College, class of 1911, and is well and popularly known here. The wedding was kept secret from all except the parents.

The wedding was performed in Boston, but the officiating clergyman's name is not known. Miss Mona Brown of this city was bridesmaid. Lavenas and his bride will go to Argentina.

—They sailed for England on the *Franconia* October 1, and expect to travel in Europe until January, when Fernando will start to work under his father in the Argentine.—Announcement has come of the engagement of Francis H. Kingsbury to Miss Lillian Frost Penniman of Medfield. Items of this sort we expect will increase in a proportion approaching the geometrical. Now they are rare enough, but all we need is time. Kingsbury and John Hall are now employed on the State Board of Health.—Andrew (Goats) Allen is in the engineering department of the Water Commission of Hartford, Conn.—Ferguson is working on the Illinois State Water and Sewerage Survey, having given up his position with the Pennsylvania railroad.—Four of our men, Metcalf, Mowry, Smith and Williams went with Swift & Company in the engineering department, each in a different city in the Middle West. "Zeke" Williams, however, soon found the business too fast for him; he is now with the Omaha Concrete Engineering Co.—L. M. Sandstein is working for the Chicago, Milwaukee and St. Paul Railroad.—Our old "Keb" writes from Denver:

Since leaving Tech I have been working for John R. Freeman who is preparing data for the "New Technology," and have covered the Universities of Pennsylvania, Virginia, Michigan, and Kansas, and am now looking over the State School of Mines just outside of Denver. I prepare quite elaborate reports of each school and make measurements and take photographs of all important features, so that my summer's work will not only help the old 'Stute but also myself, for as an architect I can use much of the information I am gathering. Have been to several dinner parties with Zip Bent, and we both dined with Heine Partridge one evening. I am now seriously

considering returning for a fifth year at Tech, and will look forward to seeing you in the fall.

—Something seems to have gone wrong, however, as Kebbon has not reappeared at the Institute. Those of us who are left here will miss his "Hi," and hearty handshake this year.—This from our friend Dick Wallis, Cleveland, Ohio.:

I've got a pretty good job with the Austin Company, building contractors, who are putting up a large plant for the General Electric Company. The work is just beginning and will last for at least two years. Its awfully interesting work getting started and is certainly worth while.

I went down to a Technology reunion dinner this summer, and met a lot of the men from Abern and Cleveland, some of them '12 men whom I didn't know while in Boston.

Clarence McDonough writes us:

Well, I am still at it here in Worcester with the Eastern Bridge Company, but can't tell how long it may last. These "Republican hard times" are tough on a fellow. The company has been rushed up till lately, but is now experiencing a relapse, and is financially ill, I guess.

—He has since gone to New York with the Post Construction Company, and is doing very well there.—Dave Benbow has been working since June with the firm of Curtis & Jones, shoe manufacturers of Reading, Pa., and from all reports seems to be advancing very rapidly indeed.—Doc Wyman is employed as draughtsman with Lockwood, Greene & Company, here in Boston.—J. H. Cather, IV. is with the Park Works Department of the Eastman Kodak Company at Rochester.—Lewis Davis is with the New Jersey State Board of Health at Trenton.—A. R. Davis is employed by the Peerless Automobile Company at Cleveland, Ohio.—L. H. Goodwin is at work with the Quincy Mining Company, Hancock, Mich.—W. P. Green is a structural draughtsman with the Eastern Bridge Company.—Jesse Hakes is on the Baltimore & Ohio Railroad, at Baltimore, Md.—Johnny Hargrave has taken charge of his father's business, and may be found at the Cincinnati Tool Co., Norwood, Ohio.—P. R. Lawrence is with the American Sheet and Tin Plate Company, Pittsburgh.—H. F. Lehmann and H. D. Mitchell are employed by the Goodyear Rubber and Tire Company, at Akron, Ohio.—J. P. Minton may be found at the research laboratory of the G. E. Company.—F. F. Rupert is in the Bureau of Mines, Pittsburgh, Pa.—F. E. Starr and H. H. Sharp are both employed by the Bunker Hill & Sullivan Mining Company, Kellogg, Ida.—Ralph Stone is with the Sullivan Machinery Company, of Claremont, N. H.—H. B. Vickers is now in the Trenton Iron Works, Trenton, N. J.—"Pete" Whittlesey is still among us here in Boston, working for Stone & Webster Engineering Corporation.—"Fritz" Shepard, likewise with the Sturtevant Company.—Jerry Howard has now the impressive title of president engineer on the Midland Ten-

nessee Railroad, Columbia, Tenn.—“Stub” Wettengel is located in the food-testing laboratories of the Department of Agriculture,—Many of the fellows instead of buckling down to work immediately after graduation, took a holiday to compensate for the hard times to come. Most conspicuous of these are the four “tourists,” Dolphy Fox, Dick Ayres, Carl Rowley, and Pa Clark, who “did” Europe together, and took all the summer to make a complete job of it. Without number are the tales they have to tell about good times in Berlin and London where, by the way, they met Don Kemp, just by luck.—Nelson Breed also went abroad last summer, and is now taking a graduate year in the architectural department.—We see many of the familiar faces about town here, some of the fellows employed in Boston, and several of them back at the ‘Stute for more “dope.”—Harry Babcock and Bob Brownlee are both here, working for a master’s degree in Course II.—Huxley, who acted as assistant at the summer camp, and was awarded his M. S. in June, is now trying for still higher honors, nothing less than the doctor’s degree. Course X takes the prize, however, with something like twelve men back for advanced work. That is certainly a wonderful showing out of a class of about thirty.—We still see a few stragglers about the halls in search of the elusive S. B., but they are few and far between.—In addition to these we have the crew of poor drudges called assistants.—There’s Kenneth Robinson, McGrath and Symonds in the mechanical department; Morrow in the architectural, Levine in the biological, and Carl Rowley in the heat lab.—Duyser is research assistant in applied chemistry.—Six of us are back in the civil engineering department, Richardson, Sawyer, Coburn, Bill Collins, Holbrook, and last of all the humble secretary.—Send your letters then, care of the Institute—that’s easy to remember, and don’t forget to tell us everything that has happened since that rousing farewell at Symphony Hall.

Address changes:—A. C. Albee, Box 931, Whitehall, N. Y.—J. A. Applequest, 240 Prospect St., East Orange, N. J.—J. L. Barry, 3d, care of Dunn and McCarthy, Binghamton, N. Y.—H. S. Benson, Y. M. C. A., Athol, Mass.—W. C. Bird, Box 228, Port Credit, Ontario, Canada.—A. E. Bradley, 381 Crestwood Ave., Akron, Ohio.—G. A. Brown, Y. M. C. A., Manchester, N. H.—R. B. Brownlee, 60 Westland Ave., Boston, Mass.—C. A. Cary, Y. M. C. A., Binghamton, N. Y.—J. H. Cather, care of Kodak Park Works Dep’t., Rochester, N. Y.—H. W. Coddington, Y. M. C. A., Newark, N. J.—W. Graham Cole, 4105 Springdale Ave., W. Forest Park, Baltimore, Md.—J. A. Cook, 18 Dodd St., Bloomfield, N. J.—L. W. Cooper, 171 Morris Ave., Rockville Center, Long Island.—R. S. Cox, Box 256, Terre Haute, Ind.—L. T. Cummings, care of R. S. Douglass, Plymouth, Mass.—A. R. Davis, 1791 E. 55th St., Cleveland, Ohio.—R. H. Doane, 44 The

Fenway, Boston, Mass.—C. W. Dwight, 218 15th Ave., E. Duluth, Minn.—Pierre Drewsen, Covington, Va.—C. A. Duyser, M. I. T.—A. M. Eicher, 214 Main St., Binghamton, N. Y.—C. P. Eldred, 20 St. James Ave., Boston.—K. W. Faunce, 207 North 4th St., Allentown, Pa.—R. M. Ferry, 508 5th Ave., New Kensington, Pa.—A. V. DeForest, care of F. W. Simonds, 1571 Beacon St., Brookline.—R. H. Fox, 54 Oak St., Hartford, Conn.—A. G. Gale, Y. M. C. A., Binghamton, N. Y.—V. L. Gallagher, 636 Sheridan Road, Chicago, Ill.—J. R. Glaze, 650 Park Place, Niagara Falls, N. Y.—W. R. Glidden, care of B. & M. R. R., Hinsdale, N. H.—Luciano de Goicoechea, Prado 84, Havana, Cuba.—F. H. Goodwin, care of Quincy Mining Co., Hancock, Mich.—W. P. Green, Box 245, Ansonia, Conn.—Harold Greenleaf, Box 367, Salem, Ill.—D. J. Guy, 1160 North St., Chehalis, Wash.—J. F. Hakes, Central Y. M. C. A., Baltimore, Md.—John Hall, 78 Westland Ave., Boston.—N. A. Hall, 91 Norman St., East Orange, N. J.—R. T. Hanson, Navy Yard, New York.—J. M. Hargrave, care of Cincinnati Tool Co., Norwood, Ohio.—C. F. Hobson, Box 1421, Berlin, N. H.—H. C. Holm, 32 Rutland Sq., Boston.—D. M. Hunting, Lowell Textile School, Lowell, Mass.—R. E. Hyde, 241 Maple St., Holyoke, Mass.—H. G. Jenks, Hyannis, Mass.—Max Levine, M. I. T.—W. C. Lynch, 637 Railway Exchange, Chicago, Ill.—H. D. Mabbott, 1791 E. 55th St., Cleveland, Ohio.—H. G. Manning, Heron Island, Me.—E. M. Marshall, Ludwig, Nevada.—M. C. Mason, 1083 Boylston St., Boston.—B. H. Morash, 225 Seward Place, Schenectady, N. Y.—F. L. Mowry, 701 Faraon St., St. Joseph, Mo.—J. A. Noyes, 146 Broad St., Claremont, N. H.—W. F. O'Brien, 146 Broad St., Claremont, N. H.—H. H. Partridge, 1256 Clarkson St., Denver, Col.—H. S. Payson, 8 Pine St., Glens Falls, N. Y.—H. M. Priest, 360 W. Church St., Elmira, N. Y.—G. H. Rhodes, 430 Woodland Ave., Akron, Ohio.—W. A. Rhodes, 728 W. 181st St., New York.—G. W. Richards, 1427 N. Front St., Harrisburg, Pa.—G. A. Robinson, 130 Sumac St., Wissahickon, Pa.—J. B. Romer, 3932 Lake Ave., Chicago, Ill.—C. B. Rowley, 237 Beacon St., Boston.—E. H. Schell, Y. M. C. A., Athol, Mass.—W. J. Seligman, Ray Con. Mining Co., Ray, Ariz.—J. D. Shore, 41 Glenway St., Dorchester, Mass.—W. C. Slade, 328 South St., Pittsfield, Mass.—H. E. Soulis, 2111 N. Twelfth St., Philadelphia, Pa.—F. E. Starr, Santa Barbara, Minas Tecolotes y Anexas, Chihuahua, Mex.—E. F. Stimpson, 912 West St., Wilmington, Del.—E. Suzuki, care of Suzuki and Co., Kobe, Japan.—W. H. Taylor, care of American Sheet and Tin Plate Co., Pittsburgh, Pa.—H. H. Thorp, care of A. S. and R. Co., Velardena Durango, Mexico.—H. B. Vickers, 307 Hamilton Ave., Trenton, N. J.—E. B. Wettengel, 1717 S. St., N. W., Washington, D. C.—C. M. Whitmore, 167 Vernon St., Worcester, Mass.—D. M. Wyman, 237 Beacon St., Boston.